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EVOLUTION AND ITS CONSEQUENCES.

IV. MORAL EVOLUTION.

1. *Preliminary.*

It may be asserted that the theory of development is the only theory of creation before the scientific world at the present time. Some assert in opposition to it, that *God made* the species, and that their gradual evolution dispenses with his interference and authorship. Will our critics explain to us *how* God made the species independent from the start? No opponent of development has attempted to do this, and until it is done, there can be no theory or doctrine in the field other than that of evolution. The evolutionists not only believe that God made all things, but they attempt to show in the field of biology *how* he did it.

If they are correct in their interpretation of the facts, there can be, and is, no interference between their views and the purest morality and the most faithful religion.

Theologians have also feared evolution as a probable enemy of Christian theology, seeing in it either a purely utilitarian or an intuitive philosophy based on necessity. But these fears are unnecessary. Scientific induction is *a posteriori*, and theology has long since taken hold of the prominent facts of human spiritual history. That the many theologies explain the nature and rationale of these facts correctly is, however, not probable, since they all differ from each other in some degree. And here evolution,

especially the metaphysieal, comes in as an aid, and will prove the regenerator of theology proper. Its light will enable the laborer to see and sweep away piles of rubbish that cumber the temple, and at the same time to link into one chain of human experience that great basement truths, which are found in all, Buddhist, Mohammedan, Christian or other.

As to "Natural Theology," its value is doubtful, but so long as matter and force remain without explicable origin, there is no fear of the universe being without a Creator for those that wish one.

The philosophy of evolution accounts for the moral and spiritual growth, on a basis of knowledge of the human mind, derived from the observation of human acts, and criticism of human consciousness. Most masculine minds find a difficulty in believing ancient testimony for the supernatural alone, without corroborative evidence of the consciousness, and one result of this theology will be to throw men yet more upon such evidence, though the founder of Christianity taught it in frequently declaring that "the kingdom of God is within you." If any prefer the evidence of testimony without a prior evidence of observation or consciousness by which to corroborate it, I would tell them that locality is all that has attacked their faith to the Hebrew Bible. Had they been born in the east they would have venerated the Koran, the Vedas, or the Triptaka of Buddha.

Observation and experiment are as necessary to the comprehension of religion as of any other subject which includes visible phenomena. And it is obvious that persons who have given attention to neither are not fit critics in the case. It is as absurd to condemn religion without having sought to experience it, as it is to deny the phenomena of chemistry without having tested their truths in the laboratory. And men are found who, while they accept the testimony of others in reference to external phenomena, deny far more overwhelming testimony regarding phenomena of consciousness. They say perhaps that we can test the outward experiences and substantiate them, but the internal ones are not to be tested by any such means. I would reply that inward experiences are to be attained, and may be experimentally understood, and that they are attended by demonstration of the most infallible description, not only to the consciousness of the experimenter but to the observation of other men.

Facts of great value to the observer are to be found in the different moral and spiritual conditions of men. The good and the bad, the honorable and dishonorable, the vicious and the moral, the benevolent and the cruel, are contrasts expressive of the wide range of human character. They constitute a body of facts which must at once provoke inquiry as to the source of the differences. As the lower traits are identical in their exhibitions with those that predominate among the members of the animal kingdom, and as we believe man to be the last of that kingdom in the line of descent, we believe that the moral advance constitutes a growth from a state inherited from the animals, to one of great superiority and of commanding dignity. Our business at present has to do with this evolution.

In previous chapters it has been stated that the present appearance of the organic creation was due to the mutual action of two classes of principles, the *originative* and the *directive*. Natural and sexual selection were regarded as the directive, while "Growth-Force," "Motive-Force," and a "Vital Principle," were regarded as the originative. Of the latter, the "vital principle" was the only one not referred to as a correlative of physical force.

2. *Utilitarianism.*

In moral evolution we believe in like manner, that two kinds of principles have operated, the one *originative*, the other *directive*. The directive principles are educational in their character, and are an outgrowth of the evolution of intelligence. They have been largely explained by the utilitarian school of moral theorists. Without pursuing very fully a subject to be found in the writings of Hobbes, Hume, Bentham, and others, it may be pointed out that these writers trace the origin of morals to the discovery by men of the rules necessary for their comfortable association in civil bodies or societies. Experience soon teaches the most barbarous men that they cannot live without mutual respect for each others persons and property, and rules come to be observed, which result in customs and habits. Habits long adhered to become, as is well known, "second nature," and become finally incorporated into character. Both physical and mental habits are well known to be transmitted (the desire for alcohol as one example of the first), and becomes more powerful by accumulation in

succeeding generations. On the Darwinian principle of "the survival of the fittest," those men and races who inherit habits, or traits of character best adapted for the beneficial relations of society for preservation of person and property, will increase in numbers and power, while those whose ideas of self preservation are of a less enlightened kind, will remain weak and finally give way to the stronger. The laws of society are thus the expressions of a forethought derived from the education of experience. In this law of progress we have one of the beneficient results of evolution. The desire to protect one's self in opposition to present gratification, is evidently the outgrowth of the development of intelligence, which knows the perils of the one course, and the benefits of the other.

Darwin suggests that the origin of the disposition to act so as to render social organization possible, is to be found in the reproductive instinct, in consequence of which mutual protection and support by two human beings is imperatively demanded by each. The important part which this fact has played cannot be denied.

The most important points in evidence for or against the truth of the utilitarian theory are of course to be derived from an investigation of the facts of human action, as we see them before us. All intellectual demonstration must rest upon observation; and the acts of men afford abundant opportunities for it. The question before us is, *do* men generally or usually act in accordance with an enlightened foresight? *Do* they either in the savage or civilized conditions act habitually in accordance with rules best adapted to preserve their properties and persons from harm? A true utilitarianism requires peace; do men live at peace? Protection to ourselves requires that others should respect or love us; and the brightest utilitarian law is Christ's, that "we should do to others as we would that others should do to us." How are these rules executed by consideration of their utility alone? Let every man answer this question for himself. It is matter of every day observation even in the most civilized communities, that considerations of ultimate utility, *do not* prevent men from committing acts which are directly opposed to their own interests and those of others, in person and property. And on the other hand, we see men perform acts of what we feel

to be moral grandeur, which are entirely opposed to their own interests for the sake of benefiting others.

From such considerations it is easy to suspect that some other motive is at work than that of calculating utility. It may be answered, indeed, in reply to the objections, that the present state of civilization is imperfect, and that the lessons of experience have not yet been sufficiently incorporated into habit and character to be efficient in practice. But this is no true objection, for an inquiry into the motives of human action involves at once the question as to why it is that men differ so *as to what is utility.* In one man it is the protection of himself from all other men and women (for even the sexual instinct, as we may frequently observe, is not sufficient to prevent quarrels and antagonism of the sexes); in another, protection of his family to the injury of other families is the best policy. Some believe it to be most useful to follow rules which benefit their country to the exclusion of other countries, and are willing to inflict the most fearful destruction upon them on the basis of what they may consider utility. But others wish and work for the good of man without regard to self, or self's city or country.

Observation upon men is our surest guide. Now, if men of to-day, with all the benefits of experience and habit, derived from the long lines of human ancestry, fail to conform to the laws of utility, with or without compulsion of social organizations (*i. e.*, as civilized or not civilized), how much less likely is it that the first men, or those who *originated* the existing lines of useful action (to leave out the heroic), were actuated by such motives? Here we are brought face to face with the motives *originative* of human action, as distinguished from the motives derived from education, or the *directive* class.

3. *Intuitionalism.*

All customary acts in which the interests of others are considered, irrespective of our own, must also have had a time of origin before tendencies to such acts could have had time to become habits, and be more or less conferred by inheritance. Why have such courses of action been preferred to those in which self alone is considered? But what are we to say of that every-day phenomenon which appears to have escaped the view of the utili-

tarians, that of men whose motives of action undergo a change in a short space of years, or even months or weeks; where tendencies of previous life seem to be lost, and new ones taken up; where, from what we may call a state of total selfishness, a state of universal good-will arises, as indicated by acts in which self is constantly sacrificed. If it be only a question of facts, thousands of examples may be cited in every country, and many cases shown, where the parentage and inheritance generally are vicious. A theory of morals which does not explain these facts is worthless. The utilitarian fails here; let us see what an intuitive theory presents.

I believe that Spencer and others have done a great service to Theology in declaring that the Deity and other asserted supernatural persons and influences are "unknowable"; the "know" being here used in the usual sense of intellection. There is nothing, it appears to me, in the world of matter or force, which demonstrates the Deity as an existence, however much it may be suggested or rendered probable. The only result of a study of nature is a knowledge of *law*, and the attempt to prove supernaturalism from it will always be to many, perhaps all minds, a ailure.

The phenomena above described, of change of motives of action in men, suggest much more strongly supernatural influence. If examined, it will be found that this change does not consist in any modification of intellectual qualities or habits, but has its seat in the feelings, or emotions. This department of mind is morally far more important than the intellect; for while the latter teaches where pleasure and where pain are to be found, the feelings determine ultimately what is pleasure, and what is pain. Anything that affects this part of mind must be most radical, for it controls the will completely, and therefore, to a great extent, the actions.

Now the phenomena of acts are easily observed; but an affection of the feelings is not observable. We have therefore to rest further demonstration on testimony either of ourselves or others. This testimony can only be furnished by those who have experienced these affections, but it is sufficient in quantity and most respectable in quality.

Harmony is a state of pleasure, while the reverse is a state of

pain. This is especially appreciated by the developed feelings of the human species. As the various processes of the outer world involve conflict, so do those of the feelings of men in relation to each other, so that pain is a frequently recurring effect. But the capacity for experiencing pain under the same degree of unharmony, or what is the same thing, the capacity to appreciate harmony in all respects, varies exceedingly in different men. Harmony is of two kinds, that of the feelings, and that of the intellect. The latter signifies *correct classification;* but my present subject is the former kind of harmony.

It is evident that it is the foundation faculty of the religious sense. But it is not that sense itself which is a derivative from it. Painful feelings first awaken it by producing a contrast between the ideal standard of harmony and the real world round us. In the savage, the fear excited by the hostile and disastrous phenomena of nature awaken it; in the civilized man, the misfortunes of country, failure of plans of action, or loss of affections arouse it. Thus *religious consciousness* appears, that is, a desire for a harmony of feeling beyond the real. The parallel with mental consciousness in its origin is seen, in that both are aroused by extraordinary and impressive external stimuli operating on a *capacity*, whose origin we know not. Attention being directed to the disasters of feeling in the world, the desire for realization of harmony is kindled, but may be quickly lost again. It will no doubt frequently recur during the life of a man, but the intelligence will generally retain memory of the events and of the resulting states of feeling. Experience of the successful results of labor, will suggest to the will the propriety of acting so as to realize this harmony, if possible; but in order that the will shall so act, it is first necessary that the feelings shall be affected at the moment with the religious consciousness. Many require many arousings from without to produce this condition of the feelings, and it will require also that they be *retained* in the brain, so that it may be frequently brought into the consciousness. Here enters a capacity which has much influence in the retention of impressions made on the feelings; I allude to the direction of *attention*. The direction of attention is under the control of the will; attention may be turned away from a disagreeable object, or riveted upon it. Whether the human being do this or not will depend largely

on the judgment; that is, in the present case, whether the ideal harmony or the temporary pleasure be the most worthy of attention and pursuit. Uneducated judgment will declare in favor of the latter, but even the educated judgment will not always decide on the higher aim. So far as we know, this decision is a matter which rests with this will alone. If the man *choose* to direct his attention to the unharmonious events of life, the preference for the ideal harmony will strengthen; that is, a desire for it will more frequently rise into the consciousness, and the religious sentiment have its origin.

To those in whom this sentiment lives as a conscious state, the following proposition will express a general truth: *that the human feelings are capable of a much higher degree of happiness or pleasure than any situation in the world can afford.* This is, I venture to say, a universal experience, and such as to justify the doctrine "that discontent is the natural, *i. e.*, original, condition of man." Nothing is more certain than that "pleasure is a coy maiden;" and vanishing in the grasp, it is ever eluding pursuit. Success in life has its triumph abated by the knowledge of more beyond, and greatly lessened by the loss of novelty. Indeed the actual pleasure offered by the world purely, becomes comparative, and rests largely on our success as compared with that of other men, be it little or great. Its reality becomes therefore questionable, especially since rivals must in that case become enemies. When on this basis we have reached a "a struggle for existence," identical in spirit with that of the beasts, unlit by one ray of humanity, but livid with the glare of burning cities, and vocal with cries of the injured and the hopeless.

What are those pleasures that come nearest to satisfying this capacity of the human heart? Those of the social affections no doubt, or those of love. Yet the experience of this in the actual rarely comes up to the ideal (I would not say *never*), but in many cases falls very far below it. And even when it approaches the point of satisfaction, just in that proportion enters the inevitable fear of its loss. This loss is inevitable, as the world well knows, and has long asked sadly if there be no remedy.

Has then this capacity for love no source from which to obtain fulfillment? Thousands can answer that it has; and while some (from experience) will hear with a smile of incredulity, and others

will regard it with curiosity only, some will conclude that were it not so Nature and her laws were in vain, and man, apparently their acme of perfection, is really the most miserable of the results.

This hunger for soul-satisfaction or perfect love, will stimulate men to seek for it in all directions. It represents in moral growth the "spontaneous activity" of intellectual history. It is the foundation fact, and is the "intuition" which *originates* effort. Now this seeking will be directed by experience into the channels most productive of results. Experience has already shown that it is not to be derived from the world about us, least of all by a consideration of our own unharmony. The last resort is in prayer to a source of satisfaction, which may be supposed, though not known, to exist. This is the only alternative under the compulsion of the case, and observation shows that it is resorted to by men in cases of extremity of the affections, the world over, whether that extremity be in consequence of affectional activity alone, or stimulated by danger of injury or death. By this means the discovery is made that a joy may be known, which goes far toward filling the void, far transcending in satisfaction its nearest parallel, the love of fellow-beings. In this we have evidence of the supernatural, which no criticism can wholly invalidate, and which, if it be pursued, leads to further evidence by repetition, and a deeper conviction of its reality. Belief in it is as extensive as the human race. It is another of the foundation facts round which cluster all the systems of theology, and much of the superstition of the world. As a satisfier of the *affections* it has appeared to men in a *personal* character, and necessarily so since our nearest earthly counterpart of it is the love of fellow-beings. Hence this inflaming of joy is referred to a person, and Him we term God, and we know none other. The process by which we become recipients is that of surrendering from time to time reliance on the various objects of visible existence, as sources of our ideal harmony. This giving up keeps pace with two growths: first, that of experience of the insufficiency of such objects; secondly, with the persistence of the sentiment of the love of harmony. By *inattention* the latter may be obscured or lost, when, of course, the value of objects as sources of pleasure is measured on a descending scale. The last supposed source of realization of the ideal is our exertion of

our own wills in action among men. The evidence of the insufficiency of this power is often long in becoming established, and when it is established men do not always find the substitute which shall effect the object through their wills.

The feelings in these different stages are of a varied character, alternating between love and fear. Love arises from higher views of perfection. It is a compound of admiration and desire; perfection is surpassingly admirable, and desire longs to possess it; in the possession is satisfaction. But when it appears to us it is not long possessed, and we find our house again vacant or filled only with our own imperfectness. Here comes in fear; first, of the perfectness of power, which may not respect our want of perfectness; second, that we may never regain the view which we found so elevating. The result of these feelings is the desire for perfection in everything ("purism" it is sometimes called), and the effort to restore harmony, wherever we see it lost, naturally follows. One of the readiest means of doing so is to allay physical or mental suffering in those about us. This result is seen everywhere, in Buddhists, Brahmins and Christians, though the distortions and abuses of "charity" are innumerable. From this source spring "disinterested" actions, unselfish and heroic deeds. Hence originates the first generous act which commands admiration at the time, because it coincided with man's ideal of perfection; and the desire of imitation of it is awakened, which leads later to some acquisition of power to execute, through effort directed to its source.

This is the *originative* force; with this given, I believe its results have developed, subject to the *restrictive* laws of utility. Experience has determined the most profitable line of action in obedience to its impulse, and the development of the intellect has constantly given it new directions and new triumphs. And the fittest has ever survived. Not only those who were morally nearest the standard of universal harmony have survived, but among these, those whose advanced intelligence has given them control of the springs of action and the sources of human influence. But let this statement not be understood as confining the source of originative power to the first man, or to only one period in the history of every man.

The intelligence once taught where satisfaction may be found,

and that to obtain it a certain approach in act to the perfections it reveals is necessary, is opposed by the feelings, which find themselves constantly influenced by hereditary selfishness. The physical and other inherited desires seek gratification often without reference to the interests of others, and generally in opposition to them in greater or less degree. Or if utility sees neither of these in gratification, it can find a waste of force, which is so much subtracted from the ability to labor for perfection. These tendencies have been, perhaps, not much weakened in inheritances. They may even have been developed. For the conquests of intelligence over nature often must give, for a time, increased opportunity for the exercise of the selfish or animal qualities, and instead of diminishing they may increase in intensity in the human race. The world has seen excesses of cruelty and lust in individuals which could not be excelled in the animal kingdom. And such traits indulged may involve some degree of pleasure which the individual may pursue to the neglect of that higher capacity they once possessed, till it would seem to be utterly extinguished. Human beings in such a condition are human but in form, and display as much the development of evil (as it is called) as others do that of good.

The inherited evil then shares with the acquired good, the dominion of the feelings, or motives of action. This double occupancy is by no means peaceable; the sense of perfection is constantly violated by selfishness, and love having learned to regard its parent as a person, earnestly longs for his revelation, and fears its loss in view of the victories of the enemy of harmony and love, the natural self. This struggle is a state of growth, but growth is slow, or may, in point of execution, appear to be null or even to be followed by retrogression. But the consciousness is being prepared for another lesson, as momentous as the first, and much more efficacious as a controller of actions. Experience finally satisfies the judgment that efforts of will cannot realize the ideal harmony of action, because the feelings are not yet so habitually in a state of love as to direct the will habitually. The feelings are indeed in a state far short of a realization of their capacity for love. It becomes clear that even the will is insufficient, and the understanding gives it up as a reliance. Then the feelings are prepared to receive impressions.

The impression which is at this time made is one of love and reconciliation. The author of such impressions appears consequently as a friend, and not as the inexorable author of perfection, whom we cannot approach, and whom we must fear while we admire. He appears as recognizing the struggle that is going on in our feelings as inevitable, and that the substitution of the higher motives for the lower is not accomplished at once. There is impressed conviction that he accepts our love, and overlooks our unharmony. This is a second fact of conciousness, which can only be asserted as matter of experience, and that by great numbers of men. It becomes incorporated into our beings, for we cannot but regard the demonstration of feeling as the most positive of knowledge. What are the consequences? To the love from admiration and desire is added the love from gratitude and hope. Fear is in great measure banished, and a state of confidence induced which is called *Faith.* The soul is filled to its capacity for happiness, and the event has been well compared to a marriage. Here is then immediately a great accession to the power of the will to execute harmony and perfection; the love is seconded by confidence, and the unharmonious nature totters in its already reduced kingdom. The direction of the motives into harmony with that which is, in itself, the author of all harmonies, becomes confirmed, and the personal source of the influence becoming a necessary belief to the understanding, he is addressed by men in terms of admiration, love and request for His presence and power. This is worship.

This event constitutes the great "expression point" in the history of the feelings, for though there was preparation before, and there will be a growth after, it is like crossing a line from darkness to light, a veritable passage "from life unto death." The law of the reappearance of the joys of perfect love is found to be nearly connected with the degree of *attention* which we pay to its pleasures in preference to those of an inferior character.

It is probable that the obstacles to this supernatural influence are primarily offered by the understanding, in men possessed of the religious sentiment; for it is not until the resources of prevision and forethought, and of acquisition, are exhausted really or ideally, that the feelings are educated into the receptive state. In the first men the understanding was rudimental; further, their ex-

periences of pleasures and pains were far less extended than in modern men. Hence their first state was probably like that of children of the present time. A fuller development of understanding and feeling by experience in creatures inheriting nothing but selfishness, would only aid that selfishness in the execution of its desires. Under such circumstances moral capacity would only develop with a growing appreciation of harmony engrafted on the inherited nature.

For moral development then we must have a development of the motives of human action, which is generally called a "spiritual" development. For this is required, first, a capacity for distinguishing harmony of feelings from conflict of the same; second, a habitual preference for the former over the latter; third, an endeavor to realize the former in fact; fourth, a conviction that realization is not to be procured by use of anything offered by the visible world; fifth, a consequent willingness to obtain those means by passive reception of a supernatural impression which harmonizes the feelings with its source; sixth, an execution of harmony or *right* by the will as a consequence.

No doubt men exist whose states are expressed by all of the above positions, who thus exist in different developmental stages. They are probably represented by whole tribes or even races, whose advance has depended on the abundance of *their means of acceleration.*

4. *Acceleration by instrumentalities.*

As all "acceleration" in morals, as in other growths, is accomplished by instrumentalities, all experiences of men, by which others are to benefit, must be communicated by the material instruments of voice and hearing, (*i. e.*, "preaching,") otherwise, as the world now is, they would fail. All accumulation of knowledge must come through language, and the material, mechanical and intellectual instrumentalities involved in writing, and recording, otherwise man had remained where he began, even in morals; for such records are a necessary part of the growth of intelligence, which is the *directive* and accumulative element in all human progress. Thus it naturally results that men make and preserve records of the histories of their feelings as well as of their experiences in other departments of thought and action. And as the

affections, after all, interest men more than anything else, it is natural that the histories of these should be the most valued and the most carefully preserved.

In this light, the importance which attaches to the best records of spiritual history may be more clearly seen. It may also be readily believed that truths attained by certain men through material agencies, as those of the senses, which have not since been exhibited in a material form, might only be preserved for our use by means of the records of them. There is no doubt that this must be the case with the acts and words of great men, who have exercised an influence on human progress. Without records of these, their influence would be excessively curtailed. Nevertheless it is impossible to conceive of an absence of records, as man is constituted.

As a check to the influence of writings of a purely imaginary character, we have first the results of intellectual growth, and the resulting knowledge of the laws of nature; and secondly the view of the perfections of God, through approach to Him. Whatever record does not accord with either of these tests, *each checked by the other,* must be false, no matter what its name or authority.

Of the ancient nations, the Chinese, the Hindoos and the Hebrews have left such records, as is well known; such are the Buddhist Triptaka, the works of Confucius, the Vedas and the Bible. The most highly developed nations of moderns have regarded the Bible as more nearly expressing the facts of our actual spiritual history than any others. It is not only found to express our needs, but to point to those means of supplying them which are known to be sufficing. Gifted men, whose writings are included in it, foretold the development of the human race, as well as the special vicissitudes and disasters which accompanied it. They foretold the success of that principle already alluded to, a "*faith* that works by love;" faith being the state of mind where love is the motive to *work* out a real harmony among men. This foretelling is another indication of the inspiration or view of perfection, which is here claimed as a fact of experience, the direction being in this case with reference to the plan of development of the species.

It would have been strange indeed, in consideration of these supernatural facts of experience, if some record of them had not

been kept, and those which relate to the future been preserved. And this record will then often stand us instead of the power by which it was written, when that is only with us in memory, and we are in so far better off than men were before it was written. Here again we have an "instrument" of *acceleration.* That it has been such is evidenced by the fact that those nations which are in the van of moral and intellectual progress are precisely those who have used it in its office as an unfolder of ever-developing truth; of truth expressive of the law of moral evolution. As examples of its expression of facts of moral growth, three passages may be selected. One of these from the prechristian writings says: "The *fear* of the Law is the *beginning* of wisdom." This describes the first stage of experience; now states that it *is* the first, or the *originative.* The second expresses the highest utilitarian aim of religion; it was one of the sayings of Christ, "we should do to others as we would have others to do to us." The highest step, and that in which man is in the best condition to execute, was described by St. John, successor of Christ, when he said that "perfect love casteth out fear."

5. *Conclusion.*

The points considered may be summed up as follows:

1. Moral growth depends on the growth of the feelings as originative, of the intelligence as directive, and of the will as executive.

2. The feelings have the moral capacity of loving or of apprehending personal harmony; in others words, of distinguishing moral pleasure and pain.

3. A supernatural revelation of perfection, while present, satisfied the sentiment of pleasure, but this result is restrained by a sentiment of pain, *i. e.*, fear, caused by perception of imperfection in the subject.

4. These sentiments become motives of action which, directed by the intelligence, become "conscience," and the actions of moral habits.

5. At a point of progress a supernatural revelation of perfection combined with one of acceptance, impresses the consciousness.

6. This banishes fear to a great extent, awakens love, and adds gratitude, which operate as a more complete alterative of the feel-

ings, which direct the will more nearly into acts in harmony with perfection.

7. The records of past experience and knowledge confirm those of the present, and preserve some facts not repeated subsequently, which are essential as explanatory of present experience.

Certain points of resemblance between the plans of intellectual and moral (or spiritual) evolution may finally be pointed out. Both have their origin in a capacity for distinguishing pleasure from pain. Both progress by a costant acceleration, the more perfect traversing the preliminary stages rapidly, which were formerly life occupations. Both have their "expression points," where a gradual advance becomes a rapid one by the coincidence of approaching points, whose combination produces great actual results. Both advance by the mutual working of two principles, *originative* and *directive*, which I have elsewhere called the "harmonic" and "conflicting." EDWARD D. COPE.

THE IDEA OF A UNIVERSITY—I.

FROM THE GERMAN OF PROF. FRANZ HOFFMANN.*

I take occasion to-day to address you, my honored colleagues, upon a subject which possesses for all of us, although in different ways, the closest interest, to wit, The Idea of the University. Even if I am unable to say anything entirely new upon this highly important subject, after what has already been said by a brilliant host of the most gifted and the most penetrating minds of Germany, including among them the greatest geniuses of the last and the

*Franz Hoffmann, of Würzburg (not to be confounded with various German novelists of the same name) is the chief living representative of the philosophical school of Baader. His laborious edition of his master's works (1850–60 in 15 vols.) prevented his engaging in independent labors on a large scale, but in 1868–9 he collected his shorter treatises and dissertations into two thick volumes, with the title, *Philosophische Schriften*. That which we here present stands at the beginning of the first volume, and was an address on the occasion of succeeding Von Lasaulx, as rector of the university. We have omitted the opening sentence. Finding that the supplementary notes on the history of the subject fitted very well into the text and did not break its continuity, we have presented them there, marking their character by the use of smaller type.

present generation, a Kant, a Fichte, a Schelling, a Hegel, a Scheliermacher, a Steffens, a von Savigny, a von Jacob, a Bernhardi, a Thiersch, a Leo, etc., who have given expression to their views in writings of great worth—yet my efforts will not be destitute of value if they are directed to bringing again before your thoughts, my honored colleagues, in a single view and in concise outlines, what you have always known; and likewise to vivifying to you, my academic friends, who are occupied in study, what you have already learnt, as well as to fully disclosing to you for the first time the idea of a university and the importance of the academic studies and life.

Were we to glance, first of all, at the historical origin of the university, we could not assert that this might be traced to any impulse to pursue science exclusively for its own sake. On the other hand, neither can it be said that science was fostered merely for the sake of realizing more safely and effectually the aims of the Church and of the State, and for the support and the well-being of life. At all events, however, the pursuit of science *first* found its source in the practical necessities of life, and afterward men pursued it with the especial purpose of removing the practical evils of life by a wider and broader insight into the true nature of things; in a word, by giving order and form to life by means of science. It was still later, when science had attained to a more important stage of development, that there arose in the inner consciousness of men a sense of the unlimited and unbounded greatness of science itself.

The first germ of the origin of the universities of our Christian era must be sought as far back as the time of Greek and Roman antiquity. At Alexandria, Rome, Athens, and later at Constantinople, there flourished educational institutions, which were essenially nothing but universities, and in some cases on a large scale.

The historic course of the culture of the human race proceeds undeniably from East to West. The Orient is the first stage of human culture, and as Europe was first peopled by westward immigration from the East, so also the first gleams of progressive culture came to Europe from that quarter. There can be no doubt that the first teachers of the people of antiquity were the priests; whatever science and wisdom existed among those peoples was concentrated in the priesthood, and was disseminated in part at least from among them to the other classes of society. The oldest schools were, therefore, those

of the priesthood, and the religious institute was the center from which all rays of culture emanated, and into which they again returned. In proportion to the importance of the services of the priest for the work of uplifting the most ancient peoples from their savagery and coarseness to a higher grade of culture, would necessarily be, on the other hand, when a certain point had been attained, the strength of their efforts to confine the cult ure of the people within limits fixed upon by their own class as the monopolists of science and education, which it was their prerogative to dole out to the people. That was the case with the oriental nations. Their educational institutions, such as existed and still exist in Indi-, Egypt, Persia, Chaldea, China, etc., have never advanced science beyond the childish stage. The intellectually gifted Greeks broke through this bondage of the sciences, though never completely, and the Romans in the main followed in their footsteps. It was the very spirit of the oriental culture that the individual should be lost in the mass; he counted for nothing in himself, but had merely the importance of taking a part in the whole ascending movement of life. The Greek spirit conquered for the individual his rightful place, as did that of Rome, which contributed largely to the same development as regards single persons, even while it destroyed and broke down national individuality. Neither Greece nor Rome, indeed, could lead on to a universal culture of humanity, since both lacked what Christianity first introduced, the spirit of universality and freedom, which was manifested in its assigning to every man the same place in the sight of God. Yet the Greek and Roman spirit was a preparatory school in relation to the culture which presented itself in Christianity. In particular they rendered great service in the organization of educational institutions. Out of the lower schools, which we find pretty early among the Greeks, there were formed from the time of Solon schools of philosophy, not at the instance of the State and under its inspection, but from a free impulse, as soon as any man distinguished for intellect, knowledge and the gift of teaching, came forward as a teacher, and succeeded in collecting around him a circle of persons desirous of learning, who voluntarily associated themselves with him. Next to Thales, Heraclitus and Anaxagoras, Pythagoras deserves mention in this connection; the historian Dahlmann says that one might call him and his circle of disciples the oldest university. But what might be called the higher schools of the Greeks kept forming from the era of the Peloponnesian war, especially in Athens, which became more and more the meeting place of cultivated men from the free cities of Greece. There Socrates taught and labored in intercourse with so large a number of gifted men and disciples, and scattered the seeds which in Plato almost completed the Greek philosophy, while he himself gave proof of his profundity and greatness even in the one-sided conceptions by which he impaired himself to less noble and less gifted minds. There taught and labored the divine Plato in the Academy founded by himself, surrounded by a noble circle of the most cultivated of his contemporaries of all ages; there he unfolded the most profound and the most lofty views that the Greek intellect was permitted to attain, and in a form of the most perfect artistic beauty that could be achieved in consonance

with the Greek genius. After his death, and by his own direction, his nephew Speusippus, succeeded him as head of the academy, and the succession fell in turn to Xenocrates, Polemon, Crates and Crantor. In Xenocrates' time Aristotle founded the Peripatetic school of philosophy in the Lyceum, and was succeeded by Theophrastus, Straton and finally Lycon. Cotemporaneously with Polemon and Theophrastus, Epicurus founded his school and provided for its continuance after his death. Almost at the same time, only five years after the founding of the Epicurean school, Zeno of Cittium established the Stoic school in one of the most beautiful halls in Athens, and he too took care for its continuance after his death.

However, the schools at Athens, including the new (also called the Second or Middle) Academy founded by Arcesilăus, and the Third Academy founded by Carneades, and also the school of rhetoric—which was still zealously cultivated—worked on the old plan of free union, being attended not by Greeks alone, but by Romans. Meanwhile Ptolemæus Lagi (or Soter) founded the Museum at Alexandria, the first High School of learning that was erected and directed by the State. Its teachers, mostly learned men from Greece, being assured of a permanent income, could, with so much the greater zeal and less distraction, devote themselves to the pursuit of science.

Even though the old and severe Romans, such as Marcus Porcius Cato, at first withstood the introduction of Greek philosophy and science into Rome, yet their resistance could not long prevail. The conquests of Alexander had extended the Greek language, science and culture through the lands which Rome afterward incorporated into her great Empire, so that these had become the common property of all the cultivated peoples of the Roman world Thus it became at last a political necessity that the Cæsars should make provision for educational institutions. The Emperor Vespasian was the first to walk in the footsteps of the Ptolemies, since he assigned considerable salaries to the Roman and Greek rhetoricians. Hadrian completed the excellent work thus begun by establishing the "Athenæum" on the Capitoline just at his accession to the goverment. Antoninus Pius (A. D. 138-61) enlarged this institution of learning by the establishment of a chair of Philosophy, and became the founder of the "Imperial Schools," by endowing institutions in all the chief cites of the Roman world, which were formed after the example of the Athenæum. Constantine the Great, after the transformation of old Byzanteum into the new Imperial City of Constantinople, founded there an educational instition upon a still more comprehensive scale. Besides these that I have mentioned, there arose similar scientific institutions at Antioch and Tarsus in Syria under the Seleucidæ, at Pergamus under the Attali, in several cities of Bythinia and Cappadocia, in the island of Rhodes, in the Greek cities of Megara, Corinth, Megalopolis, Sparta, Thebes, in Smyrna and Laodicea, and last of all in Sicily. But on the whole the richest and most varied scientific life flourished in Alexandria, where the kings of Egypt had provided for the establishment of a comprehensive library of Greek, Roman, Indian, Persian, Æthopian, Babylonian and Phœnician literature. This extensive institution

of learning, which numbered among its directors in earlier times the kings of Egypt, and at a later period the Roman Cæsars we have named, can the more easily be compared with the universities of the Christian era, in that among those who taught there were scholars of the most different departments, philosophers of all schools, mathematicians, astronomers, geographers, physicians, anatomists, teachers of natural history, grammarians, critics, poets, historians, and last of all, Jewish and Christian theologians, such as the authors of the Septuagint, Philo, Josephus and the Evangelist Mark, Pantaenus (the first scientific teacher in the school of theological science), Athenagoras, Clemens, Origen, etc. But in the third century all the more important cities throughout the Roman Empire had established chairs for teachers, secured them incomes and bestowed public honor upon them. These institutions of learning, however, had nothing like the importance of that at Alexandria; they took for their subjects of instruction chiefly grammar, rhetoric and philosophy.

The appearance of Christianity in the Roman Empire, and its victorious extension, made at first no essential change in the organization of these schools, even when in the conversion of Constantine it achieved its political victory over Paganism. Even though we hear many bitter complaints from the famous teachers of that period, that had not gone over to the church (from Libanius, for instance), that priests and monks passed through Greece in hordes, armed with torches and instruments of destruction, and had not only laid the temples in ashes and destroyed the idols, but had even declared a war of extermination upon books and schools, especially against those that still existed in Athens; yet on the other hand here and there doctors of the church, such as John Chrysostom, declared with the greatest zeal and emphasis against the reading Homer and other pagan poets with Christian children, as was done in the schools still in charge of pagan teachers. This state of things continued with the exception of a single interruption, which proceeded not from the leaders of the church, but from the Emperor Julian, who thought to destroy and annihilate the Christians by excluding them from scientific culture. With that temporary exception it continued usual that the youth of the empire should receive their education in the public schools of the pagan teachers, where they were taught and made acquainted with the works of science and of art produced by classic antiquity. Even in the educational institutions newly founded by Christian emperors, teachers as well as scholars were received without any reference to their religion, and instruction in religion, as much as public worship, remained entirely excluded from these institutions. Even after the complete disappearance of pagan teachers, as of paganism itself, even after the time of the elder Theodosius, no essential change took place in these institutions in the direction of christianizing them, and through all the later centuries, down to the overthrow of the Eastern Empire, we find that the old customary branches of instruction were still persevered in—grammar, rhetoric and philosophy. In spite of the lack of inward unity in the Eastern Empire, and the chronic faults of its administration, it lasted until its conquest by the Ottomans, A. D. 1453, and the prosecution of such scientific studies as the literary wealth inherited from classic antiquity

prompted was carried on to the last. As long was the great school at Constantinople kept up. The very destruction of the Empire by the coarse and savage Ottomans compelled the Greek scholars to fly to Western Europe, especially to Italy, with those noble treasures of the intellect of antiquity, whereby science was kindled into new life.

The transfer of the capital of the Roman Emperors from Rome to Constantinople had caused Italy an important loss in regard to scholars and the means of scientific culture, which had of necessity extended its effects to all the westerly countries of the empire. This loss must have been far greater in fact, and its effects more widely felt, when the Roman Empire divided into the Eastern and Western Empires.

With the overthrow of the Western Empire through the incursions of the German tribes, these extensive institutions of learning disappeared from its boundaries, together with the numerous schools that the Roman emperors had founded in Italy, Gaul, Spain, Africa, and all the countries subject to the Empire. What remained of the sciences was driven to the retiracy of cloisters and abbeys during this time of distress, and there found welcome and a refuge among the Christian clergy. From this quiet concealment, from the midst of this clerical class, science was again to come forth with renewed youth in the restored Empire of the West, and to press onward with growing steps of progress to the point at which the culture of the age had become sufficiently ripe to take up again the great idea of a university, and to realize it in new forms.

At the incursions of the northern Germans into the Western Empire Christianity had already been universally disseminated within its boundaries. The kingdoms newly established upon the area of the old empire by these living and powerful German communities soon did homage to the genius of Christianity. At last it pressed victorious into the primitive forests of Germany, overthrew the old gods and planted the banner of the Faith in one God and in his Son the Saviour of the world. The noble German people were called in the eternal decrees of God to become the bearers of the new world-idea, and to introduce a form of life and culture which should in all things correspond thereto.

Already before the appearance of the Germans upon the stage the Christians of the first centuries had at least in part transferred the classical culture of the Greeks and Romans to the new era That era, therefore, in giving its new shape to things, did not entirely dispense with the treasures of the old culture in the construction of the new edifice. As the fathers of the Church of those first Christian centuries labored to put themselves in possession of the treasures of the culture of antiquity, partly because they themselves had grown up within the territory of the universal culture of the times—partly because they themselves, unless possessed of a thorough knowledge of it, would not have been able to carry on with success their controversies in the defense of Christianity, partly

in the last place because they—or at the least the Christian teachers of Alexandria—recognized especially in the Greek philosophy a divine preparation for the reception of the Christian revelation—therefore it was that, in the new kingdoms of the Germans, of necessity all culture was found in the hands of the clergy. To them, therefore, the problem fell of introducing a higher culture among the youthful peoples of the German stock, who possessed at once so much capacity for development, and yet so little actual development in this direction. Yet the institutions of learning that arose in the Christian era after the migrations of northern peoples were by no means destitute of all connection with the imperial schools which had existed in the Roman Empire. The memory of those schools could hardly have been utterly extirpated. They did not disappear until the first half of the fifth century. The old university at Rome, if we may so call it, continued its existence in some sort, until the time of the Gothic King Athalarich. In Italy, Gaul, Spain, Britain, and even in some few places in Germany, imperial schools had been erected in all the more important cities. When we now see, therefore, at a late date, clerical schools in many of the very cities, in which imperial schools had previously flourished, we may well regard the guess hazarded by men of caution that those imperial schools had in many places been transformed into clerical schools, as a probability bordering on certainty. At any rate the new schools arose to fill the places of the old, and must have done so more easily in localities previously occupied by the old.

It has already been mentioned that a Christian school for catechumens had existed at Alexandria in the first Christian centuries. The Evangelist, John Mark, is supposed to have been the first that preached the gospel there. The founder of the catechetical school, however, was Pantænus, a philosopher converted from stoicism to Christianity. His Biblical and secular learning is celebrated by Eusebius, who says that his school was largely attended. His assistant or successor—it is uncertain which—was the talented Clemens, who educated Origen, a still greater man of true genius. Origen succeeded Clemens (he was actually teaching A. D. 213), and apart from some errors into which he was betrayed, deserves to be respected as a man of extraordinary achievement. His unwearied zeal in investigation and study made him master of the entire encyclopedic culture of his time, so that besides his theological lectures he taught logic, rhetoric, metaphysics, mathematics, astronomy, ethics and physics. [Jerome somewhere exclaims: "Who has read as much as Origen has written?"] He was followed by a series of teachers in this school, until, about the middle of the fourth century, it was gradually abolished, after existing, according to the statement of Philip Sidetes, two hundred and thirty-five years. A similar, but less important, Christian school existed at Antioch in the fourth century. A public institution of instruction in Christian theology flourished at Nisibis, in Syria, about the sixth century, according to the statement of Junilius. It is interesting to learn from Cassiodorus that Pope Agapetus (A. D. 535) had it in mind to establish a theological school at Rome, and was only prevented by the military disturbances of the time. Pope Gregory the Great also was on the point of carrying out a similar idea.

It is needless to more than briefly mention the high schools of the Arabs, which were not without their influence upon Christian culture. The Arabs had founded a great number of these after their own method in Asia, Africa, and Spain, and in them the natural sciences, medicine, mathematics and philosophy were studied and promoted with great zeal, and in a by no means unintelligent way, although much that was fantastic was mixed therewith.

The monastic, episcopal and parochial schools in the young German kingdoms not only were—as in the highest degree probable—developed out of the old imperial schools in many localities, but were also a revival of the Christian schools of the first centuries, with adaptation to the later period and its circumstances. The rule which John Cassian gave to the monasteries founded by him at the beginning of the fifth century in Italy and Gaul introduced the practice of requiring the monks to busy themselves with intellectual subjects But of immense influence was the idea which inspired Benedict of Nursia to found a number of monasteries—beginning with that at Monte Casino—and to devise (A. D. 520) the rule which imposed upon them the express duty of mental culture. Education between the sixth and the eighth centuries flowed chiefly from these Benedictine monasteries. It was among the Benedictines that Karl the Great found the organs and tools for realizing his comprehensive plans for educating and elevating the people and the scholars of his empire. The activity of this great ruler in this matter of establishing schools and promoting education was enormous. The school system of France and Germany owes to him its first firm organization. It was he that founded and systematized their parochial, monastic, and foundation or cathedral schools (*scholæ ad plenum*); he enjoined upon the lower schools the teaching of reading, singing, reckoning and writing; in the upper schools the *Trivium:* grammar, logic and rhetoric were taught, and in their higher classes the *Quadrivium:* arithmetic, geometry, astronomy and music. Besides the upper schools at Tours, Lyons, Orleans, Metz, Osnabruck, Fulda and Paderborn, which owe to him either their foundation, or their extension and better adaption to their proper ends, he also called into existence the imperial "Palace School" (*Schola Palatina*) by inviting to his court a circle of the most distinguished scholars, a circle of which he was the center and the life, as it accompanied him in his various residences at Aix-la-chapelle, Paris, Thionville, Nymwegen, Ingelheim, etc.

Such was the first origin of the monastic, cathedral and foundation schools in the German kingdoms that arose upon the ruins of the Western Empire. At a later date there were developed out of these last, special schools for philosophy and theology and for medicine, although not for jurisprudence. Most of these special schools by and by took up the chief branches taught in the others, but in such a way that the science for which each was originally projected retained a predominant place and influence.

Paris, Bologna and Oxford are mother universities that rose

about the same date and independently of each other in the first half of the twelfth century. From them all the later universities took copy in their erection at least, even although they afterward struck into a path of development peculiar to themselves.*

Although Bulæus and others before him sought to trace back the university of Paris to the "Palace School" of Carl the Great, yet it is impossible to do so upon safe historic ground. For it cannot be doubted that the *Schola Palatina* of the Carolingian dynasty, at whose head stood successively Alcuin, Claudius of Turin, Aldric of Sens, and (under Charles the Bald) John Scotus Erigena, ceased to exist on the overthrow of that dynatsy. We can more readily regard the school erected at Paris by St. Remigius, A. D. 882 (or according to others A. D. 908), in the time of the Capets, as a starting-point, the germ of the origin of the university of Paris, inasmuch as this school again was afterward enlarged by the co-operation of the two monastic schools of St. Victor and St. Geneveive. Of the illustrious teachers who succeeded each other at Paris—Gerbert, Lambert, Drogo, Mangold, Wilhelm of Champeaux and finally Abelard—it was especially the last that by the extraordinary influence of his lofty genius and by his brilliant endowments as a teacher of philosophy and theology, which drew thither thousands of scholars from all the civilized nations of Europe, mightily helped to transform and extend the Parisian institution of learning into a true university. Contemporaneously with Abelard (between A. D. 1110 and 1120) William of Champeaux, at the instance of Hildebert, established the school in the foundation of St. Victor, whither he had withdrawn from the world. In the series of his distinguished successors who have made their mark in history, the most illustrious were Hugo (*obiit* A. D. 1141) and Richard of St. Victor (*obiit* A. D. 1173). The monastery of St. Victor was raised from the rank of a priory to that of an abbey, richly endowed, and provided with a remarkable library. As much attention was paid to study and instruction in the monastery as to the rigors of the canonical life. The school became equally distinguished for devoutness and for science, and was attended by secular and clerical students from almost all European countries, who sought in the quiet of this monastic retreat to rise to a deeper and more inward acquaintance with divine things. It is impossible to say exactly how many of these monastic schools existed at the commencement of the university of Paris, but there are good grounds to believe that the number was considerable.

At the end of the eleventh century, or perhaps a little later, the school of Paris had already become a university, although it is from a concordat agreed to by the four nations of the Paris school in 1206 in regard to the choice of a rector, that we first learn with certainty of the existence of the

* Salerno, indeed, has been quoted as an exception, but it must not be forgotten that this medical school, although notable for its great age and its peculiar character, yet never rose above the status of a special school, and did not serve as an example for others to take pattern by, but in fact rather disappeared from the number of the higher schools.

classification by nations, and almost at the same date in a Decretal of Innocent III. the name of *Universitas* first appears as applied to the institution.

It is, therefore, beyond all doubt that the university of Paris sprung from the ecclesiastical schools in which "the seven free arts" [*trivium et quadrivium*] and the scholastic theology were taught. Philosophy and theology were, therefore, at first the only subjects of its teaching. It was only from the year 1231 that we find among its teachers special Doctors of Theology, of Medicine, and of Canon Law, by which distinctions the various principal subjects of instruction are indicated, although separate faculties did not arise until the year 1260. Previous to that date only the classification by nations was recognized, although for some time previously law (the canon law at least) and medicine had been taught, as well as philosophy and theology. The separate faculties were, therefore, all thus early embraced in the general faculty, the *Facultas Artium*, and it only needed a collision of some sort to divide them in fact into separate faculties. The separation which did exist from A. D 1260-70, although it was associated with tumult and confusion, must be regarded as an essentially progressive step in the internal organization of the university. But it was the German universities which were established after the model of Paris, and which either kept the division into nations in the back ground or entirely rejected it, that were the first to avail themselves perfectly of the advantages of that organization.

The university of Paris deserves to be mentioned with the highest distinction on account of its historical origin, its rapid progress and its extraordinary influence. No other can compare with it in respect to the extent and the degree of its celebrity throughout almost all Europe, or its historical importance and the influence it exerted on the history of Church and State, science and universal culture. The faculty of theology in particular was treated with extraordinary respect, and up to the middle of the seventeenth century its utterances had great weight in all quarters. Its deputies sat (A. D. 1408) in the Council of Pisa; they were invited by the Pope, A. D. 1423, to seats in a general council; they sent their doctors to the Council of Trent (A. D. 1542-62). Paris was the mother of a large number of European universities.

Almost contemporaneously with the great change in the higher school at Paris the law school at Bologna in Italy was raised to the rank of a university. History points to the beginnings of the law-schools at Ravenna and at Bologna itself as premonitory of this step. According to all writers of that age the Irnerius whom Odofredus mentions appears to have been the founder of these schools; he had been a teacher of "the free arts" when law-books were brought to Bologna, and had thereupon studied jurisprudence without a teacher, and then came forward as a teacher of the subject. Later still Irnerius is seen engaged in public affairs (A. D. 1113-6). From A. D. 1116 to 1118 we find him continually in attendance upon the Emperor Henry V., and frequently employed by him in important affairs of State. These accounts prove that the law-school of Bologna, unlike the school at Paris, did not spring out of any ecclesiastical institution such as a monastic, or an episcopal or a cathedral

school, but was the entirely free conception and production of a gifted, cultivated and scholarly man, who acted under no authority either ecclesiastical or secular, but knew how to secure for his purposes other able men as his associates. His undertaking was the surer of succeeding in that age and land with the aid of so much intellectual power, inasmuch as the practical need of a thorough knowledge of law had already made itself felt.

The contrasts in the form, the constitution and the history of these two model universities of Paris and Bologna, is to be traced to the difference in their origin, in the special science which originally furnished the foundation in each locality, taken in connection with the entire condition of the civil and ecclesiastical life of that era. These contrasts reappear in universities constructed after these models. The common idea of organization which underlays all mediæval universities was that of a close, independent, legalized corporation of masters, assistants and scholars, furnished with the number of officers of higher and lower degree necessary for the cultivation of the arts and sciences, and endowed with the prerogative of conferring the degrees of fellowship and mastership in their various corporations, as honors the highest known to science. At Paris this idea embodied itself in a more aristocratic shape; that at Bologna was more democratic. In the former the authorized corporation was formed out of the united body of teachers (the *universitas magistrorum*) to whose authority the students were subject. In the latter the authorized corporation was the united body of scholars (*universitas scholarium*) who elected both their presiding officers and their teachers. Originally the division into nations was common to both universities, although in somewhat different ways. But the university of Paris advanced very soon from the external and accidental principle of a national classification to the essential, objective principles of a scientific classification, and showed an emphatic and ever-increasing preference for the latter, while the university of Bologna did not accept the classification by faculties until a later period, when the other method through long continuance had secured to itself a predominance which it was able to maintain. Although Paris in its first ages was but a special school for philosophy and scholastic theology, although the classification by nations took shape from causes easily comprehended, at the very commencement of its new career, or at least by A. D. 1170 (the number of "the nations" was fixed at four in 1206), and although each nation had all the rights of an independent body, with proctors at its head, yet the university was in itself a closely united whole, since the nations exercised the legislative and executive power in joint session, and the proctors took charge of the interests of the whole body, and chose the rector (whose standing counselors they were), while at a later date the nomination of the rector was made by "electors." On the contrary, we see at Bologna, where originally no other science than that of law was taught, two different universities divided according to the nativity of the scholars, that of the ultramontanes and that of the cismontanes. As still later, important teachers of the "free arts" came forward, they formed with their scholars a third university of their own, with a rector of their own, and with the title of "University of Arts." Finally Pope Innocent VI. (A. D. 1362) founded a

theological university also, after the model of Paris, except that the theological scholars were personally regarded as attached to the University of Arts, since they had no civil rights in their own university in which the professors formed the corporation. The two juristic universities, however, formed one whole; the ultramontane contained eighteen, and the other seventeen nations, each at first under its own rector, but from 1514 they were sometimes under a common rector, and sometimes separate again, until 1552 the choice of a common rector for both became the fixed rule. As early as the thirteeeth century there were at Bologna two colleges or faculties of Doctors of Law: one for the canon, the other for the civil law; then arose medical, philosophical and theological colleges.

At the end of the eleventh century, or perhaps—according to the most recent investigations—a little later, the University of Oxford was developed out of an actual scholastic institution which may be traced back to the times of Alfred, though not without some breaks in the chain of historic continuity. In the same way the institution opened for students at Cambridge in the twelfth century, took rank as a university in the beginning of the thirteenth (A. D. 1209). These two intellectual eyes of the English kingdom, as they used to be called, were represented until quite recently as founded and erected after the model of Paris, on occasion of two immigrations—from Paris to Oxford in A. D. 1229, and from Oxford to Cambridge, A. D. 1231. The latest investigations have not given confirmation to this supposition, but rather established the fact, that these two universities were contemporary in their origin with those of Paris and Bologna, but entirely independent of them, a view which is further confirmed by the originality of their organization.

In Oxford we find that the University was divided into but two nations, the Northern and the Southern English, and no mention is made of foreign nations. Oxford had no rector, but instead an entirely peculiar place was occupied by her chancellor. The usage of students living together *in cuiis et hospitiis*, which at a very early date grew into real colleges, is here original and native to the soil, whereas in Paris it is of later origin (the Sorbonne, A. D. 1250). Each nation had its proctor, who, in co-operation with a proctor appointed by the Bishop of Lincoln, named a chancellor to represent the interests of the university. The chancellor soon came to be regarded as the head of the university, since he gradually gave up his position as one outside of university obligations and restrictions, and took his place within the *corpus scholasticum*.

At Cambridge also the university grew out of a scholastic school, and must be regarded as transformed into a university A. D. 1209, chiefly through the influence of an immigration from Oxford.

Although in the English universities the great outlines of distinction between the different groups of the sciences were recognized (as in the organization of the four faculties at Paris, A. D. 1260-70), yet in spite of numerous efforts in that direction, the different faculties never succeeded in erecting themselves into close corporations, separate from the university itself and in every respect independent of it. These universities held fast to the principle: *Uni-*

versitas est fundata in artibus. The arts-men, therefore, formed not merely an integral part of the university, but they were and still continue to be the university itself. Instead of the faculties, it was much rather the colleges that grew in place and influence. These and their governing bodies occupy in the corporate life of the university a place that fell to the faculties, their deans and professors, both in Paris and still more in most of the later universities.

It is noteworthy enough that Bologna was the example after which, not only the universities of Italy, but also those of Spain and—strangest of all—even those of France were organized, while Paris was the prototype of the first universities of Germany. The classification according to faculties and sciences, which was first developed at Paris out of older national classification, was taken by the German Universities as the starting-point of their internal organization; and as they treated the insoluble union of the entire body of the sciences as inseparable from the very being of a university, they insured for themselves a development, a position, an importance and an influence upon the entire course of the nation's historical culture, and still further upon that of the entire educated world, which on the whole surpasses the record of the universities of the rest of Europe. The Italian and the French, as also the Spanish universities, could not entirely free themselves from their original character as special schools, or always showed a disposition to relapse into the form of those special schools. The English universities indeed very decidedly held fast to academic unity, but at the sacrifice of the richer and freer development of the separate faculties, so that they also, though for a contrary reason, never quite rose above the status of the special school to the idea of the *Universitas Literarum*, to wit, the fully developed totality of the sciences. The German universities alone realized the idea of the *Universitas Literarum* in the most complete and manifold way in which it ever made its appearance. The German spirit from the first apprehended the idea of the University, as that of an institution, whose soul's life must be the inner community and the mutual connection of the whole body of the sciences. It resisted with the profoundest antagonism alike the extreme of reducing the separate faculties and their groups of the sciences to a state of bondage to the universal sciences—as in the English universities—and the other extreme of allowing the separate faculties to fall away from academic unity to the formation of mere special schools, as in the universities of Italy, France

and Spain. This depth of insight shown by the German mind is the most complete evidence of its intuitive sense of the need of mutual reaction between the speculative and the experimental elements of science, and also of the special call of this nation to realize the idea of philosophy, namely, to continually infuse ideas, and in the last place the one highest idea, into the positive and experimental elements of science—a body of material ever increasing in richness.

The first German universities, Prague (A. D. 1348) and Vienna (A. D. 1365) originally contained at once a classification by nations and a classification by faculties, and differed from Paris also in that the philosophic faculty had a dean at their head, while the same faculty at Paris had none. At first affairs of common interest were decided not in and by the faculties, but by the nations, a majority of votes being absolute, an arrangement which unhappily gave three votes to the French at Paris and the same to the Bohemians at Prague.

So again the rector was chosen at Paris—even after the classification by faculties—as also at Prague, by the proctors, and any robed Master of Arts, *i. e.*, any professor of the philosophic faculty, was eligible to the office, while at Vienna, from the first, or at least from A. D. 1384, any member of the four faculties was eligible. The classification by nations exerted more influence and continued longer at Leipsic than any other German university; it lasted there in a very limited form until the reform introduced in 1830. In Prague and Vienna the national classification was thrust into the background, and universities founded at a later period took warning from the manifold friction which the arrangement had occasioned in the older universities, often bringing them almost to dissolution; they therefore gave the go-by to the classification by nations, and expressly based their organization upon a classification by faculties. Heidelberg did this as early as A. D. 1336; Erfurt in 1392; Würzburg in 1403; and again when reëstablished in 1582; Rostock in 1410; Greifswalde in 1456; Freiburg in 1457–60; Basel in 1459; Treves in 1472; Ingolstadt in 1472; Tubingen in 1477; Mainz in 1477, etc.

Passing by minor differences of organization we see that the constitution of most of the later universities was essentially this: the whole legislative and judicial power, the choice of rulers, members and officials, and finally of the rector, lay in the collective faculties; the great council consisted of the ordinary professors of all the faculties under the presidency of the rector—the lesser council of the deans of the four faculties, with whom were associated, in some universities, assessors from all the faculties, or at least from the law faculty.

When once the first universities had been founded in Germany, their number was increased very remarkably through the zeal and favor of many German princes. Five were established in the fourteenth century, ten in the fifteenth, eleven in the sixteenth, twelve in the seventeenth, six in the eighteenth, and thus far five in the nineteenth. Some of these were afterward abolished or transplanted, or absorbed in others, or reduced to the rank of lyceums. Of

forty-nine universities which arose at one time or another down to the present day, Germany still possesses twenty-four, not counting, of course, lyceums and academies.

The course of development of universities in Europe has everywhere gone hand in hand with the progress of education in Europe. Although, therefore, the deficiencies and faults of the various periods has been always reflected in the universities, yet, on the other hand, it must in justice be said that all the important impulses to religious, artistic, scientific, legal and constitutional progress, have either proceeded from the universities or, at least, have found zealous promoters in that quarter.

Taking a still closer look at the universities, we find them to be especially the crown of all the national institutions for instruction. If we look at them merely as scientific associations, they rank below the academies of the sciences. The universities, therefore, take a middle place between the gymnasia and the academies. It is the business of the gymnasia to educate individuals up to the point of receptivity and capacity for free, active, independent cultivation of the sciences. They are, as their name implies, schools for mental gymnastics, and they have, therefore, to employ, to exercise and to strengthen the powers of the mind in all essential directions, so that it may possess such a readiness and fluency in regard to what it knows, and such a capacity to express its knowledge clearly and distinctly in correct language, and to apply it with ease, that the man shall be ripe to grasp the essence of the sciences, and in pursuing his independent studies to attain to the most profound knowledge of any subject. The academies on the other hand, are confessedly designed to be associations of the master minds in science, who shall devote their powers to its advancement in its various branches, and to lead other competent men to pursue the same course. Especially are they free from any connection with special utilitarian aims in the State, and their members being secured from want and the ordinary necessities of life, they represent the idea of the pursuit of science purely and simply for its own sake. The universities, on the other hand, are indeed in one respect associations of master minds in science, and as the very name of master implies a call to the cultivation of science, they are certainly called upon to co-operate in the work, and in so far of science, is to be treated as something of in

dependent worth, something whose dignity does not depend upon any immediate usefulness. Every university professor, worthy of the name, rightfully can and must possess the noble disposition to love and foster the sciences not chiefly for any profit or advantage to be derived from them, but rather to stand fast in his loyalty to them with all his heart and soul and mind, even when they are connected with no practical advantage whatever.

This exalted character of science, its possessing intrinsic value and its absolute and unlimited dignity, is however in no whit detracted from by its entering into relations with practical life, and furnishing the most serviceable means to realize practical ends. As well might man assert that God gave up something of His absoluteness in becoming the creator of the universe, and in His infinite love condescended, took the place of the means to His own creatures.

This relation of practical life to the essential ends of human existence is not an external accident, but a necessary consequence of the very nature of science. So far is it from dishonoring itself thereby, that much rather its dignity as well as its power are first rightly revealed by the very fact that it teaches men to judge, measure, arrange and transform the external reality accord- to its own high and irresistible demands. For science presses forward to the origin of all things, all arrangements, all relations, and since it apprehends that in her last and highest aims, she reveals herself as the power that at once supplies the basis, guides the efforts and completes the edifice of all human effort. Bacon says: *Scientia et potentia in idem coincidunt;* and again: *Hominis imperium in res in solis artibus et scientus pomtur.* To promote and cultivate all genuine science is, therefore, to advance all right practices; and universities are therefore practical institutions just so far as they are truly scientific. Their arrangements are therefore so much the more perfect in so far as they are fitted to promote the genuine scientific spirit; the more defective in so far as they show themselves less favorable to that spirit. The governments of the various States should, by all means, cherish therefore the most lively interest in the health of the university life, if only because from them they receive their officials of all sorts; yet they would take the very worst of possible means to secure men of practical capacity and gifts, if they were to degrade the universi-

ties to the rank of mere institutions for the convenience of training officials for Church and State. The universities would in the same degree furnish incompetent servants to Church and State in so far as they were hindered from cherishing and developing a living scientific spirit. All that can be said, therefore, against science really applies, not to science itself, but to the sham science which is mistaken for it, against the one-sidedness, the disfiguration and falsification of true science. Such accusations, too, are of no worth or consequence except when they are brought by the true representatives of science and in its service, with a view to its larger liberty and honor. For sham science can only be resisted and overcome by that which is true and genuine, never by ignorance.

This two-fold aim of the university, to promote science for its own sake, and also for the sake of developing the practical capacities of the student, is in reality but a single aim, inasmuch as the latter is included in the former, and must be seen to have failed in so far as it has not attained to the former. By far the majority of students devote themselves afterward to what is called practical life, and comparatively a small number to the theoretical life of the scholar, which in one point of view is really as worthy of being called practical as is the other. The university, therefore, has to make not only scholars, in so far as this word means men who will make science the business of their lives, but far more especially to send out men whose work will be to realize the ideas and truths of science in actual life. Do these last (whom Kant calls the ——— of learning), even although they do not make science as such the business of their life need to be any less thoroughly grounded in science, a thing that must be known thoroughly or not at all. How can they transfer the methods and results of science into practical life, if they have not made themselves masters of these? If to the scholar, strictly so called, it belongs to acquire a more exhaustive and detailed knowledge, and one that shall reach to the remotest corners of the province of science, yet the universities, in view of their thorough grasp of the leading principles of a scientific course, have the strongest claims upon those who are to engage in practical life, as well as upon the other class of students, to say nothing of the dignity of science and the practical discipline which its study supplies. But no one ever be-

came well grounded in knowledge who did not first rise to a proper conception of its immense dignity. Seek first *this* kingdom of heaven, this knowledge, and all things else will be added.

THE LAWS AS TO THE WORK OF CHILDREN IN MANUFACTORIES IN EUROPE.

BY EUGENE D'EICHTHAL.

Translated from the Revue des Deux Mondes, by O. H. K.

FOR the last seventy years in England and thirty years in France, the State has regulated by law the work of children in the manufactories. Neither objections as to the principle nor difficulties of execution have at all prevailed against the opinions, which have constantly sustained the justice of legislative intervention, and called for efficacious measures for the protection of the young workers. The State, in fact, has the double duty of preserving the interests of society and of succoring minors incapable of defending their threatened healths and lives. It is the duty of society to watch over the lot of rising generations. How can she allow those who, in time, will constitute her strength and wealth, to be mowed down before their time, worn out by excessive fatigue? How is it that she will not preserve them against the selfishness of those who will cut down the young trees to get their fruit?

The anxiety felt on the subject is by no means excessive. The statistics of military recruiting inform us, that of 325,000 young men conscripted during one of the late years, 109,000 were discharged for want of stature, diseased spine or constitutional weakness. What, in this diseased and feeble contingent, are the respective proportions furnished by the agricultural and the manufacturing districts? To every 10,000 conscripts fit for service in ten agricultural departments, there were 4,029 rejected, whereas in ten manufacturing departments the number of rejected was 9,930. In the departments of the Marne, Seine-Inferieure and Eure, districts exclusively devoted to manufactures, the proportion has risen as high as 14,451 rejected to 10,000 thought fit for service.

Such facts touch too closely the political and social future of

the country, to be passed over by the State; but how is the interference of the State to be governed? It is a question productive of very delicate problems: Paternal authority, family interests, freedom of work, and the necessities of competition must all be consulted. Should we establish a uniform rule for all parts of the country, and for all branches of production, without taking account of the differences of climate, the habits of the people, the variable conditions of different branches of business? Is it not an aggravation of the evil to diminish the resources of those poor families to whom the small wages of their children is indispensable? Must we not, however, make our calculations from a higher and further point of view? By developing by education the intelligence and strength of the young workers, by implanting in them moral thoughts and habits, their productive power is increased: Will not the temporary sacrifices made for instruction be amply compensated by a more considerable return? Experience has proved that, even for adult workers, the quantity produced is not always proportional to the number of hours spent in working, and frequently, within certain limits, by shortening the working day, the amount has been increased, and especially the quality of the work improved. A machine acts only proportionally to the force applied to it; but the child does more, it multiplies the force transmitted to it; the sap it draws up in education may make of a weak and useless creature, a powerful being, well balanced, healthy in body and mind. How then can it be that the State will not watch over the development and health of the young workers which fill the mills in our cities and country, from whom are recruited the army and the ranks of our voters?

The invasion of the mills and workshops by women and children is an event of comparatively recent date, in fact it has arisen since the immense multiplication of steam-machinery, which allows in almost everything the replacing of physical force by tools moved mechanically, which a feeble arm can guide. During the middle ages, and up to the 17th century, the number of children employed in manual labor was very inconsiderable. Manufacturing increased slowly. Limited to a small production it was divided into small shops, composed of a master, two or three journeymen, and as many apprentices. The number of the latter was rigorously fixed by the laws of the corporation, which in many trades al-

lowed but two, and in others three. The rules also fixed a necessary time of apprenticeship, almost always too long, varying from three and four to eight, ten and even twelve years, and the apprentice had always to pay a sum of money on entering his apprenticeship. The doors of the trade corporations were carefully guarded, and as no one could establish himself, outside of the fortress, nor work at the trade without passing the prescribed conditions, the ranks of the industrial army were rarely increased.

In the 17th century, the manufactures, developing under the influence of Colbert, began employing a certain number of children. The manufactories directly founded or encouraged by the State took many apprentices. Colbert brought into France skilled workmen from all countries, and in helping them imposed on them the obligation to take young workers to whom to teach the secrets of their work. When Colbert aided by several privileges the establishment of the manufacture of tapestry at Beauvais, he demanded that they in return should take fifty apprentices.* The master glass-workers he brought from Venice to establish a glass works had to accept a similar charge. At Aubusson, special privileges were given to those who had served three years' apprenticeship and four years as journeymen. A large number of young girls went into the making of fine lace. In Bourges alone 900 came to learn the new processes; entire districts devoted themselves to this kind of work. The government of Louis XIV. encouraged families in this course, and Colbert exempted from taxation those who had three children employed in manufactures.

The introduction of children into manufactories did not become general, however, until the restoration and the monarchy of July. Up to that time, the larger number worked in the country in the houses of their parents, or in little shops. The workers were at that time straitened by poverty, and by conditions at least as hard as those of the manufactories; but the division of industry prevented the misery of the working classes being as visible as it is now by reason of the concentration. When, during the first thirty years of this century, the great establishments took their first prodigious flight, the spectacle of the new conditions of industry was at once wonderful and frightful. Production ad-

*Levasseur, "*Histoire des classes ouvrières avant*, 1789, vol. ii., book 6.

vanced by giant steps, but seemed in her progress to swallow up whole generations, which, instead of profiting by the progress, became its victims. Near these untiring engines, which could work night and day forever, were seen chained thousands of children and women, perishing from excessive work, slaves to these iron-muscled masters, who knew neither weariness nor rest. Should these feeble ones be left to themselves and without help, to fall in the hot fight of competition? For adult workers, the larger part of well wishers would not hesitate; liberty, notwithstanding its dangers, seemed better than legislative interference; it was the part of customs and the individual will to correct the abuses. For the women, and especially for the children, the question was a graver one. These are the objections arising from the necessity for respecting paternal authority and the freedom of labor, but these should both have limits. The duty of parents was above all to watch over the health of their children; and as to the industrial interest, it must not overrule the social interests to the entire sacrifice of the latter.

It is a remarkable fact, that it is in the country which has stood firmest for economic liberty, that these truths were first perceived, and an effort was made to bridle the excessive employment of children. Seventy years ago the country of Adam Smith violated openly upon this point the *let alone* principle, which she has applied consistently in so many other matters. A long succession of bills passed against a most obstinate resistance proves that the majority understood the necessity of distinguishing in modern workers two grand classes—adults and minors; the first of which should be left to the strife of competition, to all chances of good or bad fortune, leaving them the greatest facilities of attack and defense by means of individual freedom or association—but that the second class (*i. e.*, women and children) must be assured by legislative enactment against oppression. The first step in this direction dates at the beginning of this century. In 1796, Drs. Athin and Perceval raised the cry of alarm at the extent and gravity of the evil which arose from the progress of the large manufactories. In 1802, Sir Robert Peel, father of the future minister, member of Parliament, and proprietor of a cotton mill, proposed a law, which was passed and which had for its object "to guarantee and defend the health and morality of apprentices of

both sexes." The bill forbade the labor of children at night, limited their day to twelve hours, and clothed the justices of the peace with power to watch over the execution of its provisions. This law proved inefficacious, for it left too many loopholes of escape; by naming apprentices, it did not reach the numerous factories which employed children without a contract of apprenticeship; and besides this a large number of manufacturers were justices of the peace, so the infractions of the law remained unpunished. In 1815, under a new proposition of Sir Robert Peel, Parliament ordered a commission which lasted four years. Grave facts were noticed. A pamphlet of the time, written by two Manchester deputies, contained startling revelations. The children were employed fourteen hours a day, from 6 A. M., to 8. P. M., winter and summer; they had to walk in the narrow space around their machines more than twenty miles every day; the heat of the factories was intense; the atmosphere they breathed was deleterious, and engendered numerous diseases; of 269 children examined by a physician, 116 were sickly and had their chests affected. In conclusion, the two deputies demanded that the law should limit the day's work of children to thirteen hours (including two hours for meals), and on Saturday to eight and a half hours. Wilberforce demanded in vain that a distinction should be made between young children and those which were older, and that a still shorter day should be adopted for the former. The law of 1818 fixed the maximum at twelve hours a day for children under sixteen years of age. This principle remained in force until 1833, and the authors of the first proposition of 1802, and among them Sir Robert Peel, were the foremost in defending the day of twelve hours. The only concession obtained in 1825 was the limitation of nine hours as the work day on Saturday.

The Act of 1833 is still in force among our neighbors, though many modifications in small matters have been added to it. This bill was proposed by Lord Ashley, afterward Earl of Shaftesbury and passed, aided by numerous petitions, having more than 60,000 signatures. This Act establishes a distinction between children and youth, and limits the day's work to eight hours, for those from nine to thirteen, and to eleven and a half hours, for those from thirteen to eighteen. Women also were included in these provisions. School instruction is also made obligatory on all

children under the age of fourteen, and attendance at school must be attested by a weekly certificate. The law of 1844, proposed by Sir James Graham, was a new step in advance; children under thirteen years were not allowed to work more than six and a half hours a day, either morning or afternoon, and three hours of school were necessary; children under eight years could not be employed at all.

These severe measures would probably have remained a dead letter, without an innovation, which is the salient point of the Acts of 1833 and 1844—the creation of salaried inspectors by the government, charged with the execution of the regulations. Since that time the rules have been continually perfected. Obliged at first to confine themselves to the big factories, the inspectors have seen each year open to them a further domain. Little by little almost the whole range of manufactories has been reduced to these rules. The small establishments, which escaped the laws of 1844, '50, '53 and '60, have been recently reached, under the name of workshops, by an Act of 1867, which gave their surveillance to the local authorities; but they have not obtained such satisfactory results as the government inspectors, who were last year given charge of the workshops also.

In Prussia, too, several successive laws have been passed for the regulation of the work of children in the factories: the first was in 1837, and a new one in 1853, and recently the industrial code of the North German Confederation has definitely regulated the matter (1869). The late legislation goes even further than that of England; it decrees that children under twelve years cannot be regularly employed in mills; up to fourteen years, they cannot work more than six hours, and must attend school three hours daily; from fourteen to sixteen years, the day's work cannot be more than ten hours; the working hours must be between 5½ A. M. and 8½ P. M.; a rest of a half-hour in the morning, and of an hour in the afternoon are obligatory, and during this time the children must take exercise in the open air; and the police is everywhere charged with the execution of the law.

The other principal countries of Europe have adopted diverse rules; but, in all, the law protects and regulates the work of children. It is so in Austria, in the smaller States of Germany, in Sweden, in Switzerland, where the age of admission to certain

trades is limited to thirteen and even fourteen years, and in Belgium, where the work of children between ten and eighteen years is regulated by law.

A MANLY VIRTUE.

THE recent "temperance movement" in Philadelphia was the occasion of raising an old question which bears very directly upon public morals. In addition to a pretty general agitation of the question of local prohibition, a few of the more zealous advocates of "the temperance cause" had been visiting stores and purchasing liquor on Sunday—a day on which its sale is an offense against the laws of the Commonwealth. The liquor was purchased with the presumption of good faith on the part of the buyers, but the sellers were speedily prosecuted and heavily fined—so heavily in one case that the establishment was happily closed forever. The feeling which condemned the proceeding of these few zealots for the law was wide-spread, instantaneous, and all but universal. A few of their friends held a meeting to endorse them, in the rooms of the Young Men's Christian Association, but the Association itself took the first opportunity to repudiate officially and emphatically all connection with their proceedings, and to contradict a popular impression that it was responsible. Equally strong has been the condemnation expressed publicly or privately by most of our city clergy. Popular indignation among some of the baser sort took the form of an attempt to lynch one of the spies.

How far is this indignation just and laudable? It cannot be alleged that no good has been or can be accomplished by this spying; on the contrary, we owe to these zealots the suppression of one of the vilest and most scandalous establishments in the city. Neither could they possibly be charged with sneaking or cowardice; they took their lives in their hands in this work, exposing themselves to verbal abuse and nearly every form of personal violence with all the recklessness of true fanatics; yet their services earned no thanks, their courage no respect.

We believe that the popular instinct that condemned their acts was in so far thoroughly right; wrong only in extending to hatred

of their persons. We are convinced that any attempt to weaken that condemnation, by pleading either their courage and honesty or their success in some instances, would be most thoroughly immoral—a blow at one of the deepest foundations of public morality. This hatred of spying is but one phase of the hatred of lies, which is one of the loftiest and the deepest characteristics of the Germanic race. It is our hereditary tradition to hate spying—not as dangerous, but as vile; for every spy is a liar in act, if not in word; he does evil that good may come of it. In a state of peace the act is wholly unjustifiable. In war it is allowaable in two connections: 1. As against the public enemy; this being one of the recognized weapons of the struggle. But even in war all forms of lying are not held justifiable. A ship-of-war may not fire under the concealment of a false flag. Expressed confidence may not, in any case, be repaid by deceit. Even the spy, although not necessarily dishonored socially by his occupation, is put to death without any marks of military respect. 2. Against disloyal subjects at home, or those who are *presumed* on good grounds to be *dangerously* hostile to their lawful sovereign. Thus during the great struggle between England and the first Napoleon, when Gallican sympathies were known to pervade certain quarters of English society, every suspected person was watched. Coleridge and Wordsworth, at that time rusticating in the south of England, were thus attended by a government agent, who used to listen to their colloquies from behind a bank. He was sure at first that they both deserved and suspected his attentions, as they often spoke of "spy nosey" (his nose was a prominent feature); but "by putting this and that together" he found out that it was only an old chap [Spinosa] that lived a long time ago beyond the seas and wrote a book; for his own part he believed the two gentlemen were a harmless pair of "born naturals."

Our recent civil war was held to justify similar measures toward Southern sympathizers in the North. Elegantly dressed and attractive "ladies," wearing the U. S. badge of their office concealed under their cloaks and shawls, rode in our trains and steamboats to watch and, possibly, to elicit the confidence of travelers whose gallantry exceeded their loyalty. It is said that the opening of suspected letters was, during the war, reduced to a science, and formed a distinct branch of our postal service.*

*We do not state these facts upon the authority of any who were or now are hostile to the war and its objects, or to the party in power. Some of them we know directly and officially.

The right or wrong of such measures is a complex question, and the extremity of the government's need of them must be a large element in any just decision of it.

But in ordinary times, when men are at peace with each other, we regard truth as of the very essence of that peace. There is among us a clear understanding that men shall speak the truth to each other, in politics, business and all other departments of life. Truth is what is looked for and expected between man and man in all Germanic communities. If we are deceived by lying we not merely feel (nor perhaps at all) mortified at our own credulity; our chief emotion is indignation at the cheat practiced upon us.

We have specified these things, although they are so familiar to us that we hardly ever give them a distinct thought, for the sake of the contrast which they present to the state of things among the Latin nations—Italy, Spain, and, in a less degree, France.* In general it may be justly said that in those countries society is held together by other bonds than those of public good understanding. Deceit and treachery may be as severely punished, but they are not as bitterly resented, nor as profoundly despised as in more northern nations. "To give the lie" is never so utter an insult; it sometimes is laughed off as a jest. Every Latin government uses spies and opens letters without a morsel of hesitation in times of the profoundest peace, and with no danger of exciting popular indignation. The people take such practices as a matter of course; they expect them and are on their guard accordingly. In Rome it is nearly impossible to carry on a suit at law that requires the common people to serve as witnesses. They will deny all knowledge of what happened under their very eyes and at the very instant. "You see this pig here, my friend, that I found in

*In all the Latin nations there is an infusion of German blood; a German tribe gave to each of these peoples their first shape as Christian nations after the overthrow of the Western Empire—the Lombards, Goths and Normans in Italy, the Goths and Visigoths in Spain, and the Franks and Normans in France. The German element has given much of their vitality to all of these nations, but the predominant race in each—the substratum of society—was not German, and the social character of these compound peoples, like their language, is Latin or Celto-classic. In France the German element was larger and more influential than in the others, and has given the country its name. France is the point of transition from the Celtic to the German world, as well as the "warden" of the Celtic "marches."

this scoundrel's possession?" "Pig? what pig? where's the pig!" says the astute Roman, with a blank, idiotic stare, although the animal is squealing under his very nose. *Caveat emptor* is a maxim that we imported from Italy, and a very convenient one, as it requires the buyer to remove all doubt by reducing the terms of his contract to writing. The Italian means much more by it; it is a maxim of his morality. Instead of being a transaction of peace, a purchase is a war-measure on the Mediterranean. The buyer must guard himself at every point, for he is fair game for the seller. Even in Paris American buyers are obliged to preserve carefully every receipted bill, as many of the finest establishments will have no scruples about demanding a second payment, in case their customers return to the city. In more than one instance the double payment was exacted by taking the careless buyer before a magistrate.

Only in a Latin country could a wise, sober, public-spirited man have written *Il Principe*, a manual of government in which political treachery and fraud are reduced to a complete system. That book was approved and patronized by a head of the Church; it called forth no protest in any quarter of Italian society. An Englishman was the first to denounce its utter immorality.

How can society be kept from falling to pieces in such a state of things? It has two other bonds of unity, viz., the strong social instinct and the reverence for authority which characterize the Latin races. Something of the Oriental reverence for the State and for society still clings to this Celtic race. It can never be brought to look upon governments as a mere utilitarian contrivance to accomplish certain ends, and national unity as an affair of geography. These things are sacred to him; if he believes in God, he associates that belief with them; if not, these themselves are his *fetish*.

But the Germanic peoples have not these two unifying impulses in any great measure, and society rests far more upon mutual confidence. We believe, as a matter of course, that our neighbors speak the truth; we can trust each other. Even business life rests, in the last resort, upon mutual confidence, for the machinery of safeguards and guarantees covers but a very small part of our business transactions. We speak of distrusting a man with an emphasis and a pertinence that of itself expresses our confidence

in his neighbors. There is a public understanding that every man shall speak the truth, and be believed in what he affirms until the contrary is proved.

Luther saw this great distinction between the morality of the two races with all the clearness of genius. Herder quotes him as saying:

"We Germans have no repute for any other virtue so high and, I believe, hitherto so well deserved, as for being faithful, truthful and staunch folk, whose yea is yea and whose nay is nay, as is shown by a host of histories and books. We Germans have still a spark (may God keep it alive and blow it into a flame) of this old virtue, namely, that we are still ashamed and will not gladly be called liars, nor laugh at it like the Italians or Greeks, or make a jest of it. And although Italian and Greek fashions are making inroads on us, yet we are still so far unchanged that there is no more serious or more shameful word of reproach among us than to call or be called a liar. And I verily think (if I may call it thinking) that there is no more abusive reproach upon earth than this of lying and unfaithfulness; for there is none than so breaks up all fellowship among men. For lying and unfaithfulness begin the division of men at the inmost heart, and that once effected, hand parts from hand; and when that happens what can men do or make? Hence come the divisions, the party-work and the unhappiness of Italy. When truthfulness and good faith are gone, then must all government come to an end also. God help us Germans."

His words suggest the question, how far was this Germanic virtue a root of the Reformation which is associated with his name, and whose boundaries generally coincide with those of the Germanic race? A full discussion of this might lead us into subjects unsuited for these pages. But without touching on the main question of the absolute right or wrong of the Lutheran Reformation, we may safely say that he owed very much of his influence to the popular feeling that he represented—their love of the downright truth.* The Church of Rome has always acted on the apostolic maxim, "Let all things be done to the use of edifying." She has put edification and charity first—truth second. The holy

* Father Newman gives us this *rationale* of the English Reformation: "They preferred the heathen virtues of their original nature to the robe of grace which God had given; they fell back upon their worldly integrity, honor, energy, prudence and perseverance." *Lectures on the present position of Catholics in England.* 1852.

house of Loretto, for instance, is not regarded as the real residence of the Virgin by Catholic scholars of any pretensions. "But, then," it is urged, "multitudes of the faithful devoutly believe that it was her abode; they would be profoundly scandalized by closing the chapel at Loretto, or at any act or word that would seem to deny its peculiar sanctity. As they kneel there, they have the great historical and saving facts of the life of the Son of Mary impressed upon them as nowhere else, except, perhaps, at the far-distant Holy Sepulcher. Perhaps their souls may be kept from snares and temptations by the memory of the hour that they spent there. How slight the importance of any question of fact in comparison with the salvation of a single soul." So they might reason.

The Protestant method is just the reverse. It is *truth first and edification afterwards.* This, and not any right of private judgment, is the root principle of the Reformation.

Luther was largely occupied in assailing what even Roman Catholic historians confess to have been real abuses—edifying shams. Many of these were swept out of the Church by the counter-reformation begun by Loyola. But the root principle of the Church—*edification first and truth afterwards*—remains just the same. It has much to recommend it, especially to feminine and timid natures. It cuts many a puzzling knot, and avoids many a perplexing difficulty. There is no lack of instances in which Protestants have had recourse to it in all ages since Luther. Thousands of them act on it all their lives long, without thinking that they would be logical in making their peace with Rome. Especially is it urged as a reason for confining the range of investigation and discussion in theology and the adjacent provinces of knowledge. For instance, we are told that "the revision of our English Bible is a grave mistake. It contains a great many errors, to be sure—some of them grave, most of them to be regretted. But to change them would be to unsettle the popular confidence in the whole book. What will the people think when they are told that the work that they had been taught to regard as the Word of God contained all these mistakes? Above all, what an argument for the Roman Catholic, when our Protestant Bible, our infallible authority, is confessed to be in so large a measure unworthy of confidence." Yet the present version was

made in spite of the existence of a previously authorized version, and in a time when the Protestant controversy with Rome was far hotter than at present. It was made because men still believed in the Protestant principle, and held it to be their duty to give the Scriptures to the people in the most accurate version attainable.

So again it is urged against the free investigation of scriptural and theological questions, that whatever truth may be reached men's minds will be dangerously unsettled by these inquiries. Many of those whom Bishop Colenso's arithmetic forced to give up the historic character of the Pentateuch never spoke out their belief, and heartily hate Colenso for bringing them to it. They think it edifying to teach the plenary inspiration and unqualified truth of the whole Bible, or at least to leave the popular belief uncontradicted, lest the faithful should be scandalized. For our part, we do not accept the Bishop's conclusions, but we respect the Protestant honesty with which he spoke out his real belief, even while we think him to be singularly unfitted by temperament and by training for such studies. Let us have the truth, the whole truth, and nothing but the truth on these subjects, or let us go back to the Church that our fathers came out from, since we have given up the principle of their secession. It is of no use to draw lines of distinction, and claim that this or that province is sacred from discussion. The Reformation committed Protestants to a principle which throws open all subjects for examination and research.

On the other hand let us not try to draw dividing lines of an other kind, and seek to make this root virtue of our race less than universal in any department of life. The love of truth like every other virtue is a single living whole. Suppress that in any one department of life, and you have impaired it in every other. No man can be honest in Church and dishonest in State, honest in business and dishonest in politics, honest in the family circle and dishonest on the street. He may for a time and by decided effort keep up a distinction of that sort, but it will not be for long. If a nation learn to love anything more than the truth, it will soon happen that the truth will be last of all in its esteem. If our scandalous political campaigns, with their wholesale and systematic lying are not reformed by public and decided reprobation of

falsehood, we will come to a point when our mercantile honesty will have forfeited respect. Far more important than the question of this man or that for President, is the question: How many men will come out of the struggle with tongues defiled, with their love of the truth weakened forever? The habits formed in the heat of passion and conflict will not be eradicated by the return of quiet. The struggle as at present conducted must result in a general lowering of the moral standard through the whole nation. Christmas will find the deepest foundation of the national unity (which Republicans prize) profoundly shaken; it will find the slavish mental habits and tempers which fit men for the centralized tyranny (that Democrats detest) developed in larger measure. Political falsehood helps to defeat the great end that both parties have at heart, by crushing out the manly virtue that alone can keep us a free and united people.

But why apply to truthfulness the epithet "manly," which implies in some sort a contrast with what is "womanly." Because the love of the truth which we have been speaking of, in distinction from its consequence truthfulness, is a cardinal point of manliness in a sense in which it is not womanliness. The one deadly insult to a man is to call him a liar; not so to a woman. This rests on one of the profoundest differences between the sexes—the different methods in which the mind of each apprehends every subject. To man, qualified as he is for generalization, every fact is sacred as representative of a truth, every truth as the part of a greater, and in the last resort of the Truth. That a thing is false and is not according to fact and reality is an *a priori* ground for reprobation. The feminine intellect is endowed with less grasp of generalization, looks on facts in relation to actual life and to persons. The truth for its own sake is an abstraction for which she may have a profound respect, but not an enthusiastic love. Her especial virtues are purity and honor, and the latter, which implies fervent loyalty to persons, is the feminine equivalent for our *manly* virtue. Woman is in fact and act not less truthful than man, but she is so from secondary motives, rather than primal instincts. It is hard, therefore, to excite her enthusiasm against anything false simply as false. She reprobates it, but it does not rouse her resentment. Therefore it was that the Lutheran Reformation, like that now led by Döllinger, took fast

hold of the other sex; women rarely appear prominently in its ranks except where some great local grievance or outrage upon personal rights popularly associated with the older Church, as in the destruction of the Scottish monasteries. For this reason every great system of faith and teaching that is based on abstract truth only has been woman's enemy and oppressor, degrading her with every successive generation by its one-sided masculinity that gives no play to her affections and no place of honor to her mind. For this reason, on the other hand, little social insincerities and "white lies," like the not-at-home pretense, creep into social circles which she controls. "Such things," pleads the average woman, "hurt nobody and deceive nobody: why should they be wrong." It is not, mark you, the truth for its own sake that she seeks or was meant to seek. She hates a lie, not as opposed to that, but as an injury to some person. That is a very good and efficacious motive for telling the truth and the Cilician Apostle has sanctioned it as such; but it is not the supreme motive, the manly motive. For the same reason when the average woman takes any interest in politics, her interest is sure to take a personal shape. Not the truth *per se* but this or that champion or opponent of it excites her interest. She finds her thought taking shape from her affections at every step, and cannot dissever an error from its advocates. And this is the last test of a *manly* man, his ability to distinguish between an opinion and those who hold it—to reject and oppose the former without either hating or despising the latter—an ability exactly proportional to his love of the truth for its own sake. If he have not that gift he is a womanish man, however loud he be in his voice, or brawny in his muscles, or coarse in his tastes, and that which is natural, graceful and womanly in the other sex, is effeminate and womanish in him. The touchstone of manliness is the toleration which is born of a love of the truth.

To come back to our starting point, what is the relation of the popular hatred of lies to the moral reforms which our social condition so loudly calls for? These few hair-brained reformers of ours managed to excite that hatred in opposition to their peculiar methods—could they not have used on their own side? Most certainly they could. In this as in almost every other social abuse, the root is a lie, and men can be stirred up to hate that lie. The

license given to our liquor dealers implies a distinct understanding between them and the community that their calling shall be exercised under strict limitations. They violated that understanding in violating the law; they should have shared in the outburst of indignation which was poured only upon those who prosecuted them.

Our reforms have largely failed because they have not taken this line; they have appealed to motives that met with no popular response and excited no hearty enthusiasm. The model reformer of our century is Thomas Hughes, who, by many a "touch of nature," makes the whole world feel akin. His speeches in the Tower Hamlets on the false weights, the unjust balances, the gross adulterations of food, by which the middle classes, who supported him, plundered the poorer classes who had no votes, is a splendid specimen of the popular use of ethical reasoning—the putting a moral argument in a way that makes it sting. We need such men as much as England does. They would fill a place that our professional philanthropists, with their great plans and ideas, and their slight hold on the popular conscience, can never fill. We need men who realize the instinctive, popular conception of manliness—men of breadth and insight, of toleration and moral force, who shall not confound the falsehood of opposition with the person of opponents. It is the complaint of many of the ablest advocates of "the temperance cause" that its history in America has been a continual decline from its first principles in this respect. "At first," they say, "we reasoned and discussed the subject in every possible aspect; all our ablest books were written at that stage. In late years we do little more than denounce. If an opponent attempts to assail our position, instead of rejoicing in the deed as giving us an opportunity to excite public attention to the question, and set the truth in clearer light, we merely overwhelm him with hard names and abuse. We have become so sure that we are right, that we are sure that every one that disputes the fact must be either a fool or a knave—more probably the latter." Is not this a true picture of many other efforts at social reform? Is not intolerance of dissent becoming more general among that valuable class of citizens, in whom the reformatory "salt of the earth" has crystallized. Just for this reason these men lose their hold on the popular conscience, and foil their own efforts.

THE ALPINE TORRENTS.*

FOR many years the geologists explained the existing form of our planet as due to convulsive movements of the ground. The mountains were rough uprisings, and the corresponding depressions formed the basins of the lakes and seas; the valleys being the gaps left open when the crust of the earth was disrupted. Everywhere in the solid crust of the earth are found the traces of catastrophes more or less recent. Certain modern geologists, for the most part of English origin, have repudiated these ancient doctrines. For the theory of *catastrophism*, the only one admitted up to this time, they have substituted that of *uniformism*, which sets forth that the phenomena are due to forces active at this day, certain variations in intensity excepted. Not sudden convulsions, but gentle oscillations whose effect is not perceptible until the lapse of thousands or millions of years; seas, whose depths increase or decrease imperceptibly with each century; valleys, which the glaciers and torrents dig out and level little by little; gravel fields and sandy deltas, to which the currents bear day by day a slight increment of material taken from the mountains—such is the history of the formation of the ever-changing globe on which we live.

This new doctrine, which has only the insignificant fault of assigning to the world a prodigious ambiguity, is conformable to the true scientific spirit, because it replaces the accidental cataclysms by the regular play of the ordinary forces of nature; and, besides, observed facts are favorable to it. The researches carried on all over the world, in level as well as in mountainous regions, have shown the wonderful force of the glaciers, not only of those which still hang on the flanks of the mountains, but still more of those which covered central Europe in prehistoric times, when the glacier of the Rhone stretched as far as Lyons, and when at the foot of the Pyrenees another glacier of from 400 to 800 metres in thickness had its terminal *moraine* within 15 *kilometres* from

* Extracted from an article on the subject by H. Blerzy in the *Revue des Deux Mondes.*

Tarbes.* Powdering the ground at their base, transporting to their surface large rocks without dulling their sharp edges, these heavy masses of ice glided slowly from the mountain heights, where they were formed, to the plains where the higher temperature reduced them again to water. They cut away the rocks and carried off the debris, performing on an immense scale the work of terracing, being at the same time pick and wheelbarrow. To quote to the very exact statement of M. Cézanne, "incessantly aided in their task by atmospheric action, their active force is inexhaustible, for the sun, like a gigantic pump which never ceases work, draws up the water from the seas to cast it on the mountains.

The work of erosion and leveling which the glaciers accomplished formerly with such vigor, and which they continue under our eyes with a more restrained force, the waves, the rivers, the mountain torrents and even the tiny streams perform likewise in a smaller degree; in every place the waters are charged with pebbles, sand or mud. The little streams which trickle over the surface of the ground after an abundant rain carry away with them a little dust; united in a little hollow they roll gravel; accumulated in a narrow ravine they displace enormous blocks, they wear away the banks which in falling to pieces furnish them with new material, all of which is deposited as the velocity of its current diminishes, whether the bed becomes wider or the descent becomes less steep. It, as it were, sorts the materials carried away, dropping the largest first, depositing the gravel when it assumes the tranquil flow of a river, but retaining the sand, whose lightness keeps it longer in suspension, until it reaches the sea. From this perpetual movement of solid matter from the heights to the lowlands follow three bad results: The mountain is incessantly worn away by the streams it feeds; the river-beds, filled up by sand and gravel, can no longer retain their waters, which in time of floods overflow their banks, and the mouths of rivers are obstructed by banks which the movements of the waves displace every day. Though there are sometimes advantages to be placed over against these grave difficulties; the troubled waters which may be

* See the papers of M. Ch. Martinson, "*Les Glaciers actuels et la période glaciaire*," in the *Revue des Deux Mondes* of the 15th of January, 1st of February, and 1st of March, 1867.

used in irrigation deposit on the soil a fertile mud; but all the profit human industry can derive in certain countries from this operation, known under the name of *colmatage*, will by no means balance the disasters caused by the wearing away by the Alpine torrents, the inundations in the basin of the Loire, and the drifting banks of sand at the mouth of the Seine or the Garonne.

Our globe has passed through, in pre-historic times, but not before the appearance of man, a glacial era, whose gigantic efforts are evidenced here and there by collections of rocks, and whose terrible phenomena are reproduced on a small scale by existing glaciers. To-day it is the prey of an era of torrents. This doubtless has lost its primitive activity, for the spread of vegetation, and the changes of temperature diminish it from day to day. We see rivers flow calmly at the bottoms of valleys, which the waters formerly wore away more than 100 metres below the primitive surface of the ground. The torrents still, however, cause frightful ravages in some countries. After what has been said it is clear that the wearing away of the mountains by the torrents is in some sort the cause of the damage done to the plains by inundation and of the alluvial deposits on the shore. Whence we see that we must study the phenomena, and seek the remedy there; but to do that we need not go far, our own south-eastern boundaries, and particularly the department of the *Hautes-Alpes*, furnishing lamentable examples of the work of the torrents.

The rivers flowing from the French Alps toward the Rhone, the Durance, the Drac and the Romanche, have all of them rapid and winding courses; they carry down sand and mud, increase very much during the season of storms and the melting of the snows, and diminish in volume the rest of the year. It is not these streams which the inhabitants call torrents; they reserve that name for the short feeding streams which take their rise in the mountain gorges, flow between steep declivities, and empty into the principle valley after a course of several miles, spreading over a bed disproportionately large. The torrent is divided into three distinct divisions: a receiving basin, a channel for outlet, and a cone of discharge. The receiving basin has the form of a vast funnel, whose sides, hollowed out by the water, fall away with every rain-storm. When it is situated in the higher parts of the mountains, the snow, with which the winter has filled them, is melted in a very few

days by the first warmth of spring, and the mass of liquid which accumulates at the bottom of the funnel produces a flood no less sudden than excessive. Earth, pebbles, even fragments of rock are carried along by the water, so that the capacity of the basin increases with each flood. In summer every heavy rain is followed by the same effect. The water flows rapidly over the worn sides unprotected by either bush or root, and the mountain is worn away until the living rock is exposed. That which specially characterizes the receiving basin is that the torrent is incessantly excavating it.

The channel for outlet is a narrow gorge deeply sunk between two steep banks, which, undermined by the current, fall in from time to time and furnish the torrent with a great quantity of alluvia, and the larger blocks it carries away. Except these fallings in, the current does no excavation, nor does it deposit anything, for the descent of the bed is always great; but, when coming out of this gorge, the waters empty into the valley, they spread over a large surface, lose in consequence their velocity, and deposit the materials they have no longer the force to carry with them: the largest first, and the smaller a little farther on. In this way is formed the cone of discharge, a rounded and extended artificial mound, a mass of blocks and pebbles which joins the mountain and extends it at the expense of the valley. The stream, when quiet, flows habitually over the apex of the cone, in a bed it has dug out for itself; but during floods it leaves this bed and spreads to either one or the other side of its discharges. Everywhere it goes it leaves more debris, until, arrived at the foot of its descent, it pours into the river whose affluent it is, its waters still charged with sand and dirt.

AGRICULTURE AND MANUFACTURES.

DIVERSITY of employment increases the value of man and land. In manufacturing districts farm-labor is always better paid than in districts purely devoted to agriculture. Mr. Caird, a very high authority, after thoroughly examining thirty counties in England, reports that in the eighteen southern counties, where the productive industries are little diversified, the wages for farm-

labor are not above 8s. 5d. a week, while in the twelve northern counties, where the coal and iron mines are, and manufacturing enterprise of all kinds is active, they are about 11s. 6d. "The influence of manufacturing establishments is thus seen," he says, "to add 37 per cent. to the wages of the agricultural laborers of the northern counties as compared with those of the south."

Arthur Young investigated the question in these same counties in 1770. Mr. Caird comparing the rates found by him in 1850–1851, with those given by Mr. Young in 1770, ascertained that the wages paid farm-labor had increased, in eighty years 66 per cent. in the manufacturing counties, and in the agricultural counties only 14 per cent., thus demonstrating that this difference was both produced and maintained by the great manufacturing establishments. The wages of labor must always be paid out of the value of the product. Skilled labor receives two or three times the wages of unskilled, because it contributes that much more to the production of the result. Wages then are a measure of productiveness.

One of the great facts in political economy is, that the value of land and labor can only increase in advancing conditions of society, and that there can be no real advancement unless they both increase together. In a country purely agricultural the increase in the value of land will of necessity be slow, for there are only a few products that will bear transportation to a foreign country or to a distant part of the same country. The agriculturist needs a home market to enable him to sell the small and perishable products of his farm, and even to keep prices equal. This he can only have when the industries of the community are diversified. Agriculture is found to be dependent upon the development and diversification of all other industries, and to be measured by the diversification.

In agricultural countries land has very little value compared with the value of the personal property. This is shown by looking first at a savage nation, then at a semi-civilized nation, and last at a civilized nation. In savage states of society land has no exchange value, no one claiming any particular tract of land as his own. It belongs to nobody and at the same time to everybody. Among savage states there is no property except personal property. As we advance to semi-civilized states we find in addition to personal property a small proportion of fixed capital or

real estate. Again, as we come to civilized states we find the proportion of real estate constantly increasing, and the amount of fixed capital to exceed that of personal property. Thus the law is established that the proportion of fixed capital or real estate, to floating capital or personal property held by any people measures the wealth and grade of civilization.

Among civilized people real estate always preponderates; among savage, personal property; the greatest prosperity and vital force is always found in the former class; the least among the latter. For example, the real estate of the States of Massachusetts, New York and Pennsylvania, as reported in the census of 1860, was 75 per cent. of the whole property; in the States of Maryland, Mississippi and Texas it was only 33¼ of the whole. In one district there was diversified industry, and in the other the employment of the population was purely agricultural. The vital force of the two districts was shown in the late war—one came out of the conflict richer than it went into it, while the other was ruined. Slavery, of course, is responsible in a measure for the difference. Labor expended upon land gives it its value, for in its primitive condition land has no value. A whole continent, without cultivation, has no value, or scarcely any; the natural yield amounts to nothing. An acre in the Western Territories is worth about one dollar; in parts of Pennsylvania an acre, as good but no better, is worth about two hundred dollars. Again, an acre in some counties of Pennsylvania is worth not more than fifty dollars, while an acre of equally productive soil near the city of Philadelphia is worth three hundred dollars; and so the country and the world over. In a word, a home market gives value to the farm product and, in turn, to the land. Nothing makes or can make a home market except diversified industries.

As the whole value of the land arises from the labor directly expended and reflected from outside industries upon it, so the farmer is deeply interested in the creation of a local centre of manufactures. He will see that farm lands near a great manufacturing city have much greater value than farm lands in the far West; he will see that this increased value comes from the demand for the product of the farm which will not bear distant transportation. Should he carry his inquiries further, he will see that the value of real estate increases in proportion to the extent

and diversification of industries. We are told that the product of the farmer is always in demand, that people the world over must eat, and that the farmer need not concern himself about other industries; but in truth no class so much needs the encouragement of manufactures, for only by diversification near him can the farmer have at command diversification of the products of his own farm; in no other way can he have a market for that which will not bear distant transportation. The products of a farm that bear transportation are not those that yield the best prices. No one will deny that home markets give value to land, nor that diversified industries create the home market.

"A universal principle of association and exchange rules here, as it does among all things, animate and inanimate, individual and social. Everywhere difference of quality, condition, capacity or position excites manifestations of force and exchanges of activities. In chemistry combinations of correlated elements develop varied and multiplied powers in the atoms of matter, give rise to new forms and forces, with something that approaches the miraculous, in the movements of nature. In astronomy differences of position and magnitude produce and determine the motions of the celestial bodies."

Differences alone awaken life; the greater the diversity of organs, the higher in the scale is the individual. So the more diversified the industries of a people, the greater the intelligence and force of the nation. There must, however, be harmony—a grand system of co-operation between the agriculturist and manufacturer; each must acknowledge its necessary dependence upon the other. Low-priced raw materials cannot bear the cost of distant transportation, and the manufacturing classes cannot afford the high-priced. The higher-priced raw materials—such as cotton, iron, lead, silk, wool and hides—will bear the cost of transportation, but the low-priced cannot bear the cost without adding so much that they are beyond the market value.

The manufactures of cotton and woolen goods brought from beyond the sea are maintained in England, but at a cost to the people that cannot well be estimated. Nearly ten per cent. of the whole population of England are at this time cared for in the poor-houses, while a still larger class are scarcely able to keep death, from starvation, from the house.

Good British authorities estimate that five millions of the people are removed only one step from pauperism. The absolute disregard for all moral laws, the utter depravity and the destitution of the laboring classes in England are patent to all. "This is the worked-out result of a system of industry that depends for full four-fifths of its raw material and one-fourth of its breadstuffs and provisions upon a foreign, and, in the main, a transmarine supply. Under this system Ireland, upon which the burden has fallen most heavily, has declined 2,820,000 in population since 1841, with the natural increase of at least 1,400,000 also lost. Thus it has starved, killed and banished full fifty per cent. of the Irish people in thirty years; and all this has been done as a necessity under the policy of importing foreign raw material, to be manufactured for foreign markets! Low wages must be forced to the edge of starvation in England, driving Irish labor still lower, the fearful competition of approaching destitution being used to hold down the rate of wages low enough to command the foreign markets, which the system struggles for. This is what it eventually costs a people who persistently violate the law of trade between nations; a law that limits exchanges to natural differences of their respective products; a law of climate, making supplementary exchanges necessary, and therefore right and orderly, allowing, however, a temporary accommodation of nations in the infancy of the arts by which they are for the time rendered incapable of self-supply, but fixing the limits of commerce rigidly at these natural boundaries—the consequences of transgression, as sure as those of any other natural law, being a measure of suffering to the aggressor proportioned to the injury inflicted upon the victim."

Thus it is seen how the manufacturer profits by being near the sources of his supplies, and at the same time near the comsumer of his product. We have already endeavored to show the dependence of the agriculturist, the cultivator of the soil, upon the more skilled laborer who converts the raw material into shape for market. We have the same condition of affairs, that we have in England, in all countries that follow her lead. India presents the most awful picture; but Turkey and Spain and Cuba all prove the same thing. On the other hand, we see what diversified industry has done for our own country, for Germany, for Russia and for France.

What we aim to prove is that it is all-important for those engaged in the cultivation of the soil to encourage the manufacturer of cotton and woolen goods, the miner of coal, the worker in and miner of iron, and in fact each and every variety of industry. No nation exclusively devoted to agriculture can even farm well or get full yield from the soil, and must soon be reduced to a state of absolute dependence and slavery.

The movements in business which tend to increase the value of lands, under the increased demand for the products of the farmer, and the increase of the mechanic and manufacturing occupations on which agriculture depends, all tend to the development of man, and lift him up higher in the scale of civilization. A true system of political economy is one that tends to the advancement of the general welfare of the people, and this advancement depends upon the diversification of all the wealth-producing industries of the country. The political party which watches over the interests of the people in a true spirit will enact such laws, and execute them, as will encourage and stimulate such diversification as will develop all the latent energies of the people and of the country they inhabit. This can only be done in our case by a strong protective tariff. The protection afforded by the tariff of the last ten years has made men of our people, and our nation a very rich and powerful one, no longer dependent, but able to live within ourselves. In the coming election for President it is the duty, and at the same time the interest, of all, to maintain in power the party which has faith in protection of our varied manufactures, and not to suffer the Free Trade party under the lead of Mr. Greeley to grasp the reins of government.

THE hottest of summers following upon the coldest of winters, suggests the law of compensation which Solomon discovered and Goethe reiterated as the essence of all finite things. But may not the heat of our summer necessitate intense cold next winter, and that again bring us a summer as hot as the present, and so on forever? The weather-wise say not; a compensation may last for several years, but runs its course in a cycle of three or at the furthest of thirteen years, and all things come back again to a start-

ing point of equilibrium, each of the later reactions being less forcible than its predecessor.

It is some comfort to know what is the matter this summer. That venerable youth, the sun, has been renewing his youth in a strange and inexplicable manner, pouring forth whole deluges of magnesium vapor through the usually hydrogenic envelope of the chromosphere. Tacchini, the Italian observer, who makes the report, says: "It seemed to me as if I could see the whole surface of our great source of light renewing itself." He says that both astronomers and ordinary observers noticed a difference in the color of the sunlight this year. These little evidences of solar mutation are enough to make one uncomfortable as to the future. We have hitherto looked upon old Sol as a model of sober regularity, but we are now reminded that he is one of a class, some of which have gone out completely after a few flare-ups. If he is "no better than the rest of them," he may take such a freak as that into his head, or perhaps may go off on a spree of another kind by growing all at once fifty times as bright and hot as at present. Science can give us no assurance that he will not.

It is strange how little adaptability Americans show in this matter of climate. Our poets, as Lowell tells us, still eulogize May as the month of returning warmth and flowers, because it is so in England. Although we have no genuine spring until June, and our May is a mixture of the English March and the English April, the tradition of May flowers and May warmth clings in our literature. Our Roman Catholic brethren are even worse off as an ecclesiastical tradition with them confirms the literary one. May is "the month of Mary," sacred to the lily of Nazareth, for its floral beauties and fragrances which are unfortunately confined to Europe; could they change her month in America to October with its half-mystic beauties of the Indian summer, the season would suit better.

To come down to minor matters, why do we still follow English fashions in building houses with sash-windows which suit the English climate, instead of the lattices that would add so much to the comfort of our summers, and furnish also better protection against the draughts of winter? Is it anything but the dead inertia of our natural conservatism that makes us copy the windows of Middlesex, in Pennsylvania, and retain the climatic fashions of

the truly temperate zone in what an old Pennsylvannish-Deutsch doctor once called "die intemperate zone?"

Another of our superstitious traditions is the use of chairs as a rest for tired bodies. To rest is to reverse the conditions of work, to take out of use the muscles, etc., that have been in service. A chair gives actual rest to just so much of the body as lies between the knee and the hip; it gives partial rest to all below the knee. To the body proper and the head, and especially to the spine, which bears the chief brunt in most kinds of active exercise, the ordinary chair gives no rest whatever. To be sure the sitter on such a chair may slide forward on the seat so as to recline backward, but this brings him to sit on the end of the spine, a practice which has often caused spine disease. If he rest himself by stooping forward he compresses the lungs and prevents their free action, with equally bad effects. After all the Turks have some merits. That they tell the truth and expect others to speak it, is generally admitted. They also know a thing or two about house-furnishing, about the carpets with which they cover their floors, and the seats which they provide as resting places for the wearied forms of mankind.

THE current political campaign bids fair to prove the most intensely personal in all our annals, with the possible exception of 1832. The two candidates are both so well known, and one of them has spent so many years in the freest expression of his views about persons and principles, and the old party lines of division have been so broken up by recent movements, that the fullest facility is given to the men of small calibre and of waspish disposition, who abound in all quarters of our politics. We fear that we must class *The Nation* among the very worst of these offenders. The friends of that weekly looked to it for the beginning of a great revolution in the newspaper world, in this very respect, but the animus it displays, at present, is of the worst. We gather from all its expressions, paragraph and article alike, that while it almost despises one candidate, it hates the other most fervently. When *The Nation* was started, it was spoken of as likely to occupy the place held by *The Spectator* in England, but it has really come to occupy just the opposite one. *The Spectator* is the great anti-

cynical organ, the paper that tries to discern good everywhere, in friend and opponent alike. Hence the exceeding weight and force of its denunciations, when it does denounce, which is not often. *The Nation* is studiously destroying its moral weight by every successive issue. It actually looks upon the present struggle with less fairness, and less of the insight that is born of fairness, than does the *New York Herald.* It may soon take for its motto the explosion of the old grammarian of Renaissance times, "May God confound your theory of the irregular verb!"

NEW BOOKS.

ANNALS OF PHŒNIXVILLE AND ITS VICINITY FROM THE SETTLEMENT TO THE YEAR 1871. By Samuel W. Pennypacker, Philadelphia: Bavis & Pennypacker, 1872.

Within the last few years there has been a wonderful increase in the number of histories of particular places and families, works which, though for the most part of merely local or private interest, yet frequently contain matter of general interest. The majority of these books have appeared in New England and New York, but of late the mania seems to have spread over the country. Of these, the work named at the head of this notice is a fair sample, the larger part of it being devoted, of course, to the histories of the neighboring families, but not interesting to those outside of the place and families; but some parts—that, for example, devoted to the early settlement of the place—would, *mutatis nominibus*, nearly apply to other localities, which of course makes it interesting as a specimen; and then in this volume there is a very nice little bit of colonial history, being the account of a quarrel between Governor Denny and the Colonial Assembly, in reference to Wm. Moore, one of the justices of the peace for Chester county, and father-in-law of Dr Wm. Smith, the first provost of the university. To enter at all into the merits of this quarrel, would lengthen this notice too much: suffice it to say, that his neighbors, over whom he exercised his office of justice of the peace, "moved by envy, malice or uncharitableness," tried very hard to get him removed, in which they were seconded by the Colonial Assembly and by the governor, who had an absolute veto upon the doings of the Assembly. In conclusion we would notice the evidently great research made by the author in obtaining the materials from which his volume is made, and which is always laudable, whether in a work of this kind or one of more general interest.

We have also received from Messrs. D. Appleton & Co., N. Y., Story of a Millionaire, by Miss Muhlbach, and The White Rose, by G. J. Whyte-Melville, which we will notice in our next.